

**COMMONWEALTH OF PUERTO RICO
PUBLIC SERVICE REGULATORY BOARD
PUERTO RICO ENERGY BUREAU**

NEPR

Received:

May 10, 2021

11:55 PM

IN RE: REVIEW OF THE PUERTO
RICO ELECTRIC POWER
AUTHORITY'S SYSTEM
REMEDATION PLAN

CASE NO. NEPR-MI-2020-0019

**SUBJECT: Submission of LUMA's Presentation for
Technical Conference.**

MOTION SUBMITTING PRESENTATION FOR TECHNICAL CONFERENCE

TO THE HONORABLE PUERTO RICO ENERGY BUREAU:

COME NOW LUMA Energy, LLC ("ManagementCo"), and **LUMA Energy ServCo, LLC** ("ServCo"), (jointly referred to as "LUMA"), and respectfully state and request the following:

1. On April 23, 2021, this honorable Puerto Rico Energy Bureau ("Bureau") issued a Resolution and Order that set a procedural calendar in this proceeding ("April 23rd Order").
2. Among others, in the April 23rd Order this honorable Bureau directed that LUMA should file by May 10, 2021, the presentation to be offered during the technical conference on LUMA's System Remediation Plan ("SRP").
3. In compliance with the April 23rd Order, LUMA is hereby submitting as Exhibit 1, the presentation to be offered in the upcoming technical conference scheduled in this proceeding.
4. LUMA looks forward to its participation in the technical conference in furtherance of this Bureau's consideration and approval of the proposed SRP.

WHEREFORE, LUMA respectfully requests that this honorable Bureau **take notice** of the aforementioned; **receive** the presentation to be offered by LUMA during the technical conference; and **deem** that LUMA timely complied with the portion of the April 23rd Order that required submission of the aforementioned.

RESPECTFULLY SUBMITTED.

In San Juan, Puerto Rico, this 10th day of May 2021.

I hereby certify that I filed this motion using the electronic filing system of this Energy Bureau and that notice will be sent to the attorneys for PREPA, Joannely Marrero-Cruz, jmarrero@diazvaz.law; and Katuska Bolaños-Lugo, kbolanos@diazvaz.law.



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Exhibit 1



SRP Technical Conference

NEPR-MI-2020-0019

May 14 & 17, 2021



A nighttime photograph of a city skyline, likely Bogotá, Colombia, featuring illuminated buildings and a street with traffic. The image is partially covered by green geometric overlays: a large green triangle on the left and a green sector on the right, both separated from the background by white lines that radiate from a point in the bottom right corner.

Prefacio radicación regulatoria LUMA Energy

¿Quiénes somos?

Los puertorriqueños dependen de la electricidad. Un sistema eléctrico robusto y resiliente es la columna vertebral del desarrollo económico.

En LUMA, nuestro compromiso es proveer a los puertorriqueños un sistema eléctrico en el que puedan confiar. Nuestro norte es transformar la red eléctrica en una centrada en el servicio al cliente, confiable, resiliente y segura para todos los puertorriqueños, tal y como ellos merecen. Queremos mejorar la calidad de vida y el crecimiento económico del país proveyendo el sistema eléctrico para ellos.

La gente, nuestros empleados, nuestros clientes y las comunidades en las que vivimos y trabajamos son prioridad para LUMA.

- Motivamos e inspiramos a nuestra gente a aprovechar todas las oportunidades que reciben, mientras trabajan para construir un mejor sistema eléctrico para Puerto Rico.
- Nuestra meta es proveer un servicio al cliente excepcional e implementar políticas públicas a través de una operación de excelencia.

Creados para
Comprometidos con
Escuchando a **Puerto Rico**



Nuestra misión para Puerto Rico

Reconstruir y transformar el sistema eléctrico para proveer un servicio sostenible, centrado en el cliente, confiable, resiliente, seguro y a precios razonables para todos los puertorriqueños.

OBJETIVOS CLAVE



LA SEGURIDAD ES PRIORIDAD

Reformar los estilos de trabajo, enfocados en una cultura de seguridad para nuestros empleados y la gente de Puerto Rico



MEJORAR LA SATISFACCIÓN DEL CLIENTE

Transformar las operaciones para ofrecer un excelente servicio al cliente y electricidad confiable a precios razonables



RECONSTRUCCIÓN DEL SISTEMA Y RESILIENCIA

Utilización efectiva de fondos federales para restaurar la red eléctrica y mejorar la resistencia de la infraestructura, que actualmente está muy vulnerable



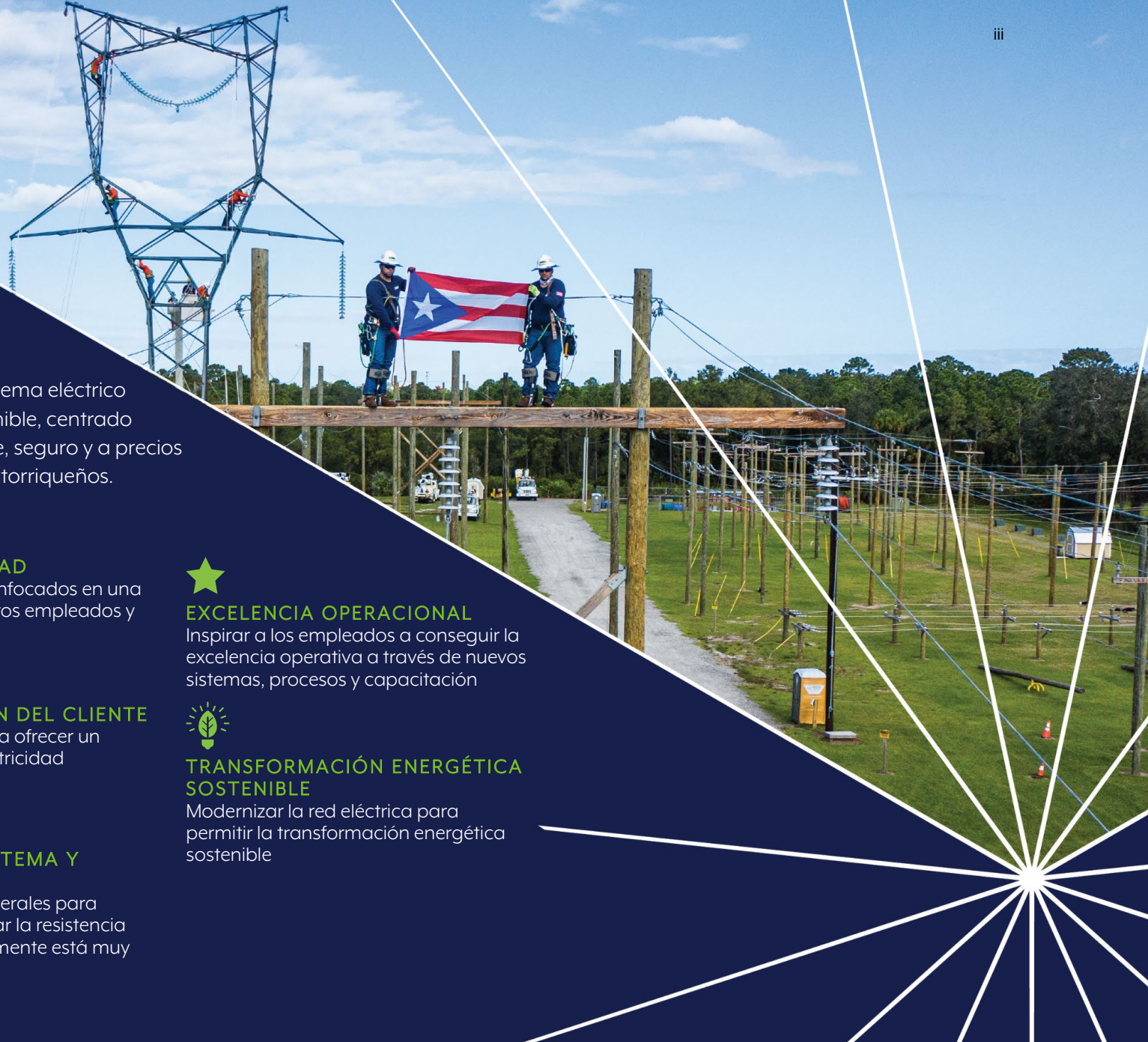
EXCELENCIA OPERACIONAL

Inspirar a los empleados a conseguir la excelencia operativa a través de nuevos sistemas, procesos y capacitación



TRANSFORMACIÓN ENERGÉTICA SOSTENIBLE

Modernizar la red eléctrica para permitir la transformación energética sostenible



¿Cómo llegamos aquí?

El sistema eléctrico de Puerto Rico está en un punto de inflexión crucial. Puerto Rico aprobó reformas legales fundamentales que establecieron un regulador independiente; la necesidad de nuevos operadores para el sistema de distribución y transmisión y separadamente para el de generación de la Autoridad de Energía Eléctrica (AEE) y así allanó el camino para una red eléctrica más limpia y resistente.

La AEE está en bancarrota. Puerto Rico necesita un operador profesional para manejar y administrar los fondos federales que son tan necesarios para poner en marcha la operación de recuperación y transformación.

Luego de un riguroso proceso competitivo que duró 18 meses, se seleccionó y adjudicó a LUMA un contrato para operar y mantener el sistema de transmisión y distribución eléctrica. Esto luego de evaluaciones y aprobaciones de la Junta de Directores de la Autoridad de Alianzas Público-Privadas, la Junta de Gobierno de la Autoridad de la AEE, la Junta de Supervisión Fiscal, el Negociado de Energía de Puerto Rico y el Gobernador de Puerto Rico.

LUMA fue escogida de manera unánime por el Comité de Alianza por:

- Nuestra experiencia líder en la industria
- Historial de cumplir con nuestros compromisos y
- El enfoque en soluciones diseñadas para cumplir con los objetivos del gobierno de transformar el sistema de transmisión y distribución.



ALIANZA PÚBLICO PRIVADA Y ACUERDO DE OPERACIÓN Y MANTENIMIENTO



**Dueño de
activos**



Administrador



Operador



**PROMESA y asuntos del
Título III**



**Fondos federales de
recuperación**

Lo que hemos hecho desde junio 2020

Desde junio de 2020, LUMA ha estado revisando información y visitando las instalaciones de la Autoridad de Energía Eléctrica (AEE), como parte de un proceso de evaluación detallada de las condiciones actuales de la red y los servicios que se ofrecen. Los problemas encontrados no se limitaron a daños causados por los huracanes. Las evaluaciones resaltaron un desempeño por debajo de los estándares de la industria eléctrica y condiciones precarias en la mayoría de las instalaciones.

Hemos diseñado programas para la recuperación de la infraestructura, lograr mejoras operacionales y aumentar la satisfacción de los clientes. Nuestro enfoque entrelaza políticas públicas claves con planes factibles. Dimos prioridad y se establecieron planes de acción para cumplir con nuestros clientes, y al mismo tiempo satisfacemos los requisitos de política pública y contractuales.

Desarrollamos planes, presupuestos, métricas de desempeño y principios de operación para el sistema que estamos presentando al Negociado de Energía de Puerto Rico. Todos estos informes serán revisados y deberán ser aprobados por el Negociado de Energía antes de que LUMA asuma la operación del sistema de transmisión y distribución, calendarizada para junio de 2021.



Lo que estamos presentando para la aprobación del Negociado de Energía

Plan de remediación

Nuestros planes

El plan de remediación del sistema se enfoca en atender las áreas que están por debajo del estándar de la industria y plantean los mayores riesgos para los puertorriqueños, incluyendo a nuestros empleados.

Presupuestos iniciales

Cómo llegaremos allí

Los presupuestos iniciales no proponen un aumento de la tarifa básica. Cubren todos los planes durante los primeros tres años de operación, abarcan los gastos de operación y mantenimiento, y las inversiones (incluyendo aquellas subvencionadas por el gobierno federal).

Métricas de desempeño

Cómo seremos responsables

Las métricas de desempeño son indicadores numéricos para medir el buen desempeño de LUMA, alineados con las políticas públicas y la creación de mejoras tangibles para Puerto Rico.

Principios del sistema de operación

Cómo operaremos la red eléctrica

Los principios del sistema de operación definen cómo funcionará el despacho y control para garantizar el suministro y entrega de energía eficiente y confiable.

Nuestra gente primero.
Seguridad siempre.

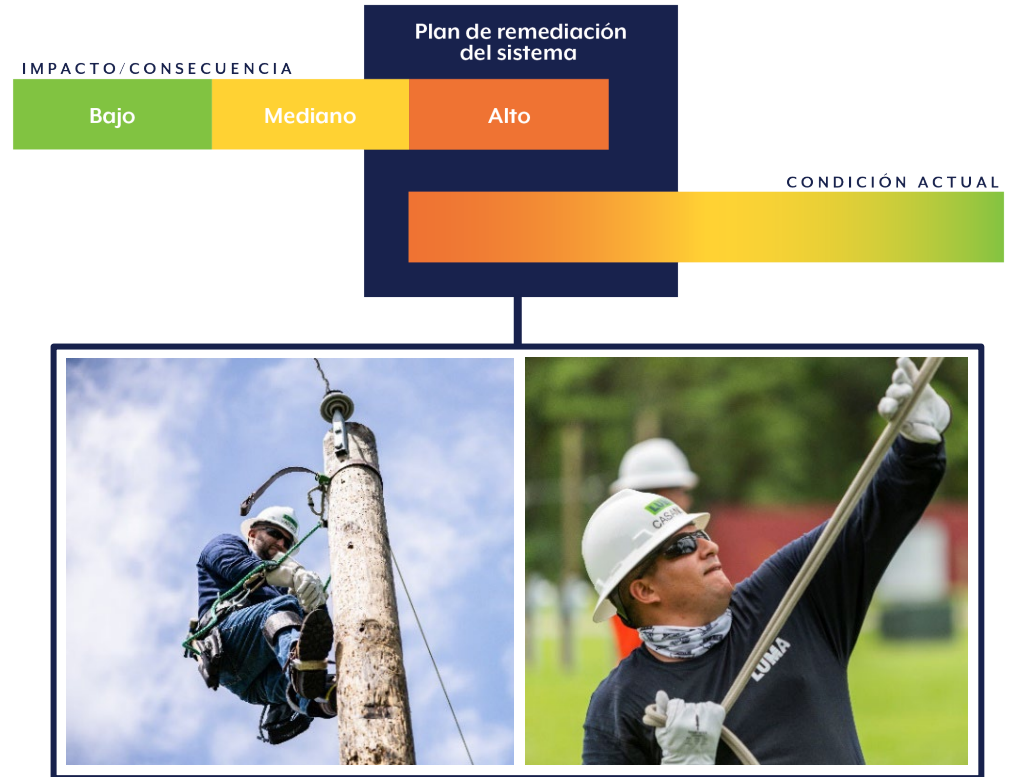
Nuestro plan

Plan de remediación del sistema

El plan de remediación de LUMA establece la estrategia para remediar, reparar, reemplazar y estabilizar el sistema, las prácticas y los servicios, así como los equipos del sistema de transmisión y distribución. Las iniciativas de este plan son fundamentales para la recuperación y transformación y abordan los aspectos más peligrosos y frágiles del sistema eléctrico de Puerto Rico. Estas estrategias le permitirán a LUMA operar y mantener el sistema eléctrico de la isla en cumplimiento con los estándares de la industria, los requisitos contractuales y las leyes aplicables.

El plan de remediación es la culminación de las evaluaciones que LUMA realizó durante el período de transición inicial. LUMA ha planeado la inversión de aproximadamente \$4 mil millones de dólares en iniciativas y proyectos como parte del plan de remediación y más de \$10 mil millones de dólares totales en todos los programas de mejora.

El plan de remediación trabajará las áreas que están por debajo del estándar en la industria y que representan el mayor riesgo para los puertorriqueños, incluidos los empleados y el propio sistema eléctrico. Es una parte crítica de un conjunto más grande de medidas para mejorar y reconstruir la red eléctrica.

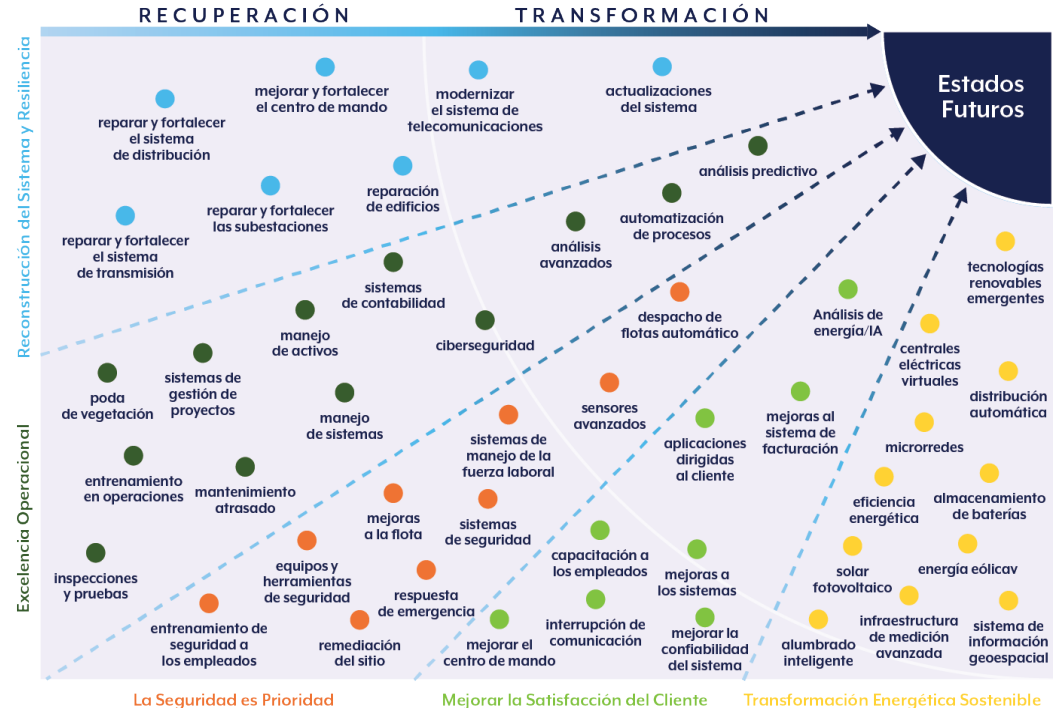


Hacia dónde vamos

La estrategia general de LUMA para implementar el cambio de acuerdo a las políticas públicas se compone de dos fases: Recuperación y Transformación.

La **FASE DE RECUPERACIÓN** conlleva restaurar la infraestructura y los procesos de la utilidad a un estado de funcionamiento correcto, reparar la red a corto plazo y aprovechar la experiencia de los empleados actuales de la Autoridad de Energía Eléctrica (AEE) que se unirán a LUMA. Simultáneamente, se implementarán nuevos procesos, sistemas y capacitación para gestionar de manera más eficaz la operación de los servicios fundamentales.

Mientras se recupera el nivel del servicio eléctrico, LUMA acelerará el paso de la **TRANSFORMACIÓN**, en concordancia con las metas del gobierno y las políticas públicas adoptadas, rediseñando el sistema eléctrico para que esté a la altura de las necesidades del pueblo de Puerto Rico durante las próximas décadas. La transformación estará enfocada en energías renovables y más opciones para los clientes a través de sistemas y tecnologías avanzadas. Muchos de los programas de transformación se llevarán a cabo concurrentes con los programas de recuperación.



Cómo lo alcanzaremos

Presupuestos iniciales

Los presupuestos iniciales cubren todas las gestiones de LUMA durante los primeros tres años de operación e incluyen los programas asociados con el plan de remediación del sistema y las métricas de desempeño. Hemos identificado 69 áreas de reparación y mejoras para encaminar a la utilidad hacia la recuperación y transformación mediante la implementación de políticas públicas, mejoras de desempeño y el uso de fondos federales. Comenzaremos la mayoría de estos programas durante nuestro primer año de operación.

LO QUE INCLUYE

Nuestros presupuestos iniciales comprenden partidas para costos operacionales y de capital (incluyendo aquellos sufragados por subvenciones federales) para el sistema de transmisión y distribución.

Propuesta de
presupuesto
de LUMA

Sin aumento en la tarifa base

* LUMA no está solicitando aumento en la tarifa base. LUMA no posee autoridad legal para determinar las tarifas de servicio eléctrico. El Negociado de Energía, como regulador independiente y especializado y como monitor del cumplimiento con la política pública energética en Puerto Rico, es el organismo autorizado en ley para evaluar y fijar las tarifas.

Cómo seremos responsables

Métricas de desempeño

LUMA evaluó el desempeño de la Autoridad de Energía Eléctrica (AEE) utilizando métodos estándar de la industria. Analizamos los procesos existentes en la AEE, los sistemas y los datos sobre sus operaciones e identificamos áreas a mejorar al compararlas con las prácticas en la industria. Los hallazgos (incluidos los de un tercero independiente) muestran que el desempeño de la AEE se posiciona por debajo de otras compañías de energía en América del Norte.

SERVICIO AL CLIENTE

(J.D. Power)

Más Bajo de 144
compañías de energía en
América del Norte

47% más bajo que el de peor porcentaje

INCIDENTES DE SEGURIDAD

(OSHA, 2019)

5 veces mayor
al estándar de
la industria

200% más que la empresa de peor porcentaje

INTERRUPCIONES DE SERVICIO

(IEEE)

9 veces más
largos y frecuentes
que la media

LUMA SERÁ RESPONSABLE

Los puertorriqueños merecen responsabilidad de su proveedor de servicios de electricidad.

Las métricas de rendimiento de LUMA son indicadores numéricos que indicarán cómo va el desempeño de LUMA. Diseñadas para la industria de la energía eléctrica y compartidas con el público para garantizar la transparencia, utilizamos métricas estándar para medir nuestro desempeño y mostrar cuán bien adelantamos los compromisos contractuales y de política pública contraídos. Cada indicador mide el desempeño de LUMA en funciones clave como: servicio al cliente, seguridad, trabajo técnico y gestión financiera.

Métricas de desempeño propuestas por LUMA

SATISFACIÓN DEL CLIENTE

- J.D. Power-Encuesta de satisfacción al cliente: Clientes residenciales y comerciales
- Rapidez media de respuesta
- Tasa de quejas
- Tasa de abandono

SEGURIDAD

- Tasa de incidentes registrables de OSHA
- Fatalidades OSHA
- Tasa de gravedad OSHA
- Tasa OSHA DART

TÉCNICO

- Índice de frecuencia de Interrupción media del sistema (SAIFI)
- Índice de duración de Interrupción media del sistema (SAIDI)
- Inspecciones (Líneas de distribución y transmisión, subestaciones)

FINANCIERA

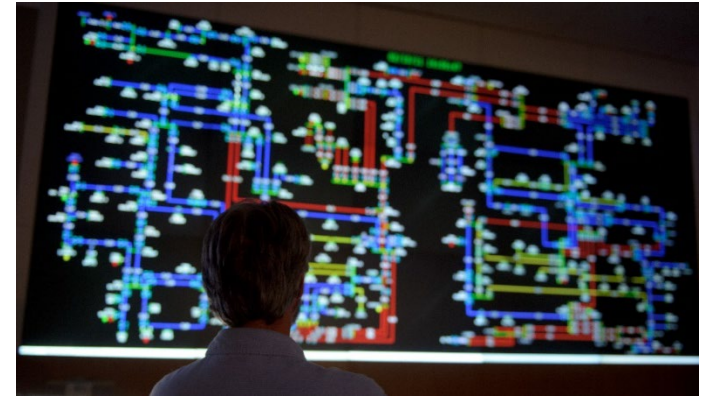
- Presupuesto operativo
- Presupuesto de capital: Financiado por el gobierno federal y el cobro de tarifas
- Días Ventas Pendientes: Clientes Generales y Gubernamentales
- Horas extras

MÉTRICAS DE RESPUESTA DE EMERGENCIA

Cómo operaremos la red eléctrica

Principios de operación del sistema

Estos principios definen cómo funcionará el sistema de despacho y control de la red. Habrá reglas para lograr un suministro de energía eficiente, entrega de energía confiable y toma de decisiones transparentes. El despacho de recursos en tiempo real, la planificación del sistema y los procedimientos de emergencia se enfocarán en conseguir resultados positivos para el sistema en general y nuestros clientes. Esto será cada vez más importante, a medida que se mejore el sistema de transmisión y distribución y las energías renovables se conviertan en la mayor fuente y opción energética para el País.



Lo que esto significa

- LUMA entregará energía lo más económicamente posible, mientras se mantiene la confiabilidad del sistema para **reducir los costos del combustible y las emisiones**
- Con reglas definidas y mejoras al sistema seremos capaces de “ver” las interrupciones del servicio antes de que ocurran para **evitar desconexión de carga**, acelerar los tiempos de respuesta y **minimizar las interrupciones del servicio a los clientes**
- Observarán **mejoras en la respuesta a emergencias** como huracanes y terremotos
- El Sistema operativo sentará las bases para que los inversionistas y el público tengan un mejor entendimiento de los aspectos técnicos y las limitaciones de la red eléctrica, permitiendo propuestas más competitivas y focalizadas en proyectos de **energía renovable y soluciones de mayor valor para Puerto Rico**

principios definidos
de operación
del sistema

Mejor Confiabilidad

Qué esperar

A la expectativa de la aprobación de nuestros informes regulatorios, continuamos trabajando para asumir la operación del sistema de transmisión y distribución en junio 2021.

Una vez arranquemos, verán:

- Mejoras en la capacidad de respuesta a los clientes
- Desganche de vegetación
- Inspecciones de áreas que reportan un gran número o significativas interrupciones del servicio
- Mejoras en la seguridad pública, incluyendo el alumbrado de las calles

Queremos ser una compañía de la que los puertorriqueños se sientan orgullosos y en la que quieran trabajar. Para conseguirlo vamos a:

- Priorizar la seguridad
- Mejorar la satisfacción del cliente
- Reconstruir y mejorar la resiliencia del sistema
- Enfocarnos en la excelencia operacional
- Asegurar una transformación energética sostenible

Queremos que tengas la energía segura y confiable que te mereces.

LUMA Energy's Regulatory Filings



Who We Are

Puerto Ricans rely on electricity. A robust and resilient energy system is the backbone for economic development.

At LUMA, our job is to provide electricity that Puerto Ricans can depend on. Our commitment is to transform the electric system by implementing public policy to achieve the customer-centric, reliable, resilient, safe energy that Puerto Ricans deserve — energy that will support economic growth and quality of life.

- We put people first, our employees, our customers and the Puerto Rican communities where we live and work
- We encourage and inspire our people to embrace opportunities as they work to build a better electric system for Puerto Rico
- Our goal is to provide exceptional customer service and implement public policy through operational excellence

Built for
Invested in
Listening to **Puerto
Rico**



Our mission for Puerto Rico

To recover and transform the utility to deliver customer-centric, reliable, resilient, safe and sustainable electricity at reasonable prices.

KEY GOALS



PRIORITIZE SAFETY

Reform utility activities to support a strong safety culture focused on employee safety and the safety of the people of Puerto Rico



IMPROVE CUSTOMER SATISFACTION

Transform utility operations to deliver a positive customer experience and reliable electricity at reasonable prices



SYSTEM REBUILD & RESILIENCY

Effectively deploy federal funding to restore the grid and improve the resilience of vulnerable infrastructure



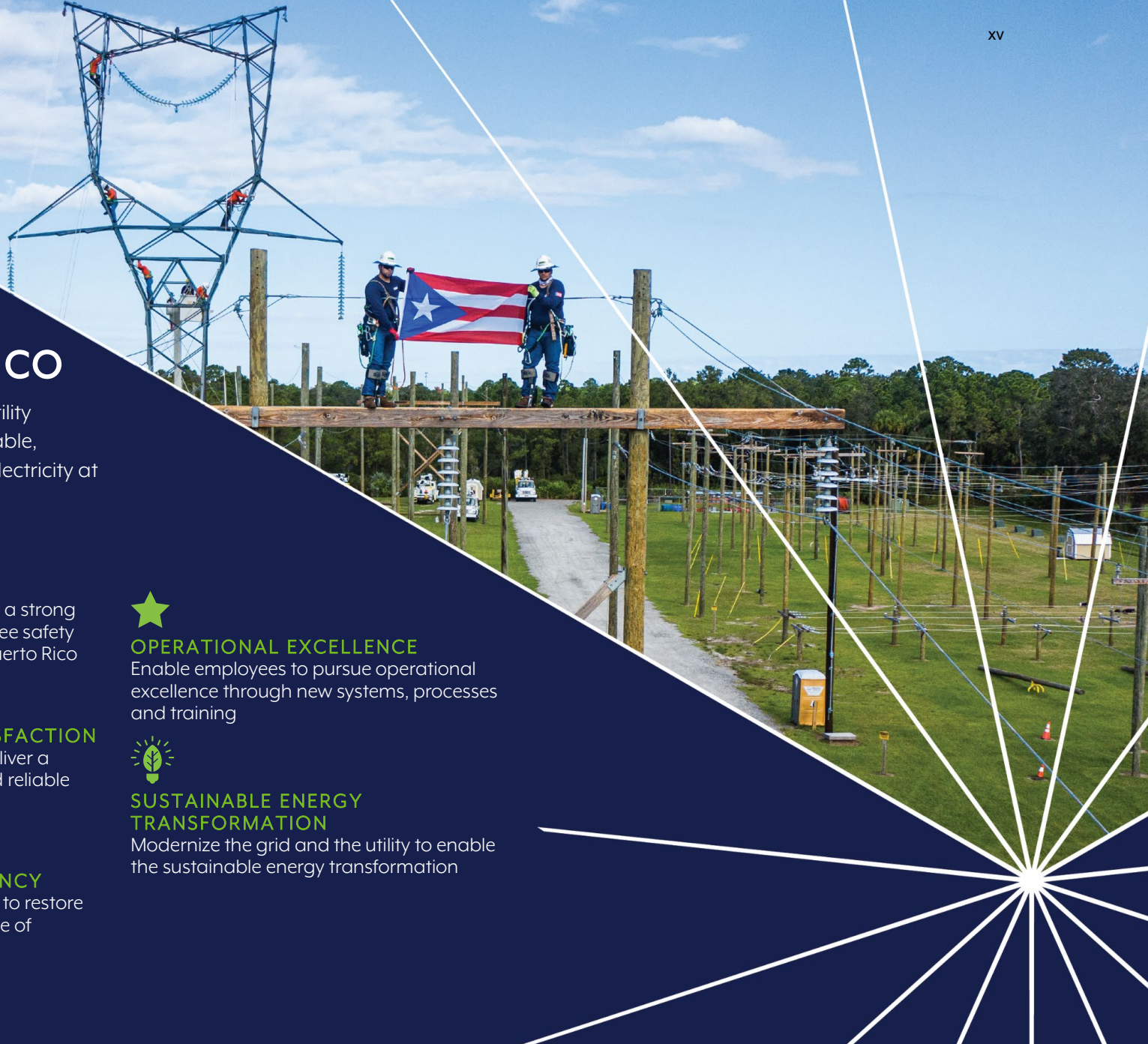
OPERATIONAL EXCELLENCE

Enable employees to pursue operational excellence through new systems, processes and training



SUSTAINABLE ENERGY TRANSFORMATION

Modernize the grid and the utility to enable the sustainable energy transformation



How we got here

Puerto Rico's electricity system is at a crucial inflection point. Puerto Rico introduced fundamental legal reforms that established an independent regulator; required new operators for PREPA's distribution, transmission and generation assets; and paved the way for a cleaner, more resilient grid.

With PREPA in bankruptcy, Puerto Rico needs a professional operator to manage and administer the critical federal funds required for this recovery and transformation.

After a rigorous 18-month selection process, LUMA was awarded a partnership contract to operate and maintain the electric transmission and distribution system following evaluations and approvals from the Public-Private Partnership Committee, Board of Directors of the Public-Private Partnership Authority, PREPA Governing Board, Financial Oversight Board, Puerto Rico Energy Bureau and Governor of Puerto Rico.

LUMA was unanimously chosen by the Public-Private Partnership Authority Board because of:

- Our industry-leading expertise
- History of delivering on our commitments and
- Our focus on solutions designed to meet the government's goals for transforming the transmission and distribution system.



PUBLIC-PRIVATE PARTNERSHIP: O&M AGREEMENT



Asset Owner



Administrator



Operator



PROMESA & Title III

COR



FEMA

and other agencies

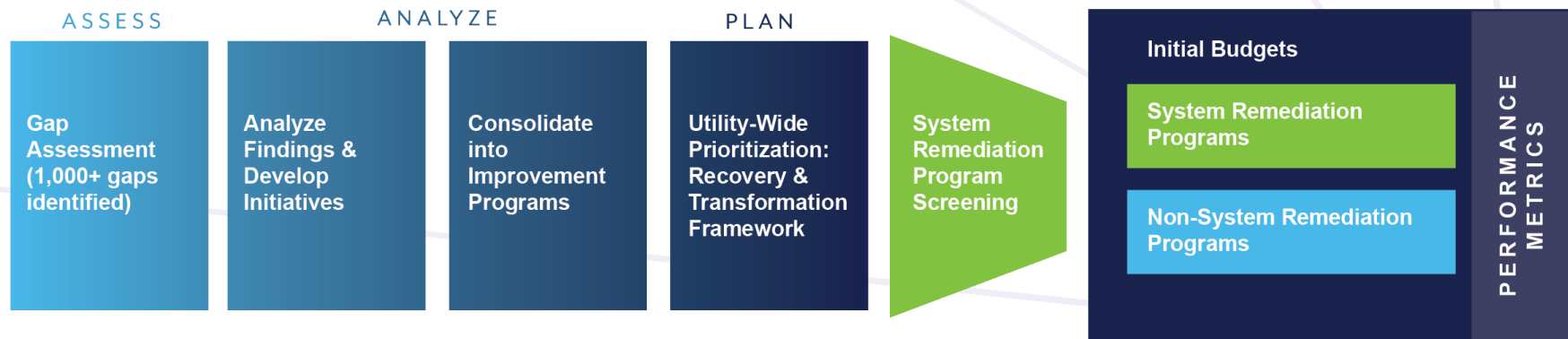
Federal Recovery Funds

What we've been doing since June 2020

Since June 2020, LUMA has been reviewing PREPA's data and sites, conducting a detailed assessment of the current conditions of the grid and utility service. The issues were not limited to hurricane damage. The assessments highlighted performance below industry standards and consistently poor health across most assets.

We then designed programs to carry out infrastructure recovery and achieve operational and customer satisfaction improvements. Our coordinated approach links key public policy to actionable plans. We prioritized and sequenced activities to deliver value to our customers and meet public policy and contractual requirements.

We developed plans, budgets, performance metrics and system operation principles and are now submitting our work to the PREB. These submissions will be reviewed and approved by PREB before LUMA begins operations, currently targeted for June 2021.



What we're submitting for PREB approval

System Remediation Plan

What we have planned

The System Remediation Plan (SRP) addresses areas that are below standard and pose the highest risk to Puerto Ricans, including our employees, and the system.

Initial Budgets

How we'll get there

Initial budgets do not propose a base rate increase. They cover all activities during the first 3 years of operations and include O&M, non-federally funded capital and federally funded capital.

Performance Metrics

How we'll be accountable

Performance metrics are numeric indicators to measure how well LUMA is performing in alignment with public policy and making tangible improvements for Puerto Rico.

System Operation Principles

How we'll operate the grid

System Operation Principles (SOP) define how the bulk power system will operate to ensure efficient energy generation and reliable energy delivery.

People First.
Safety Always.

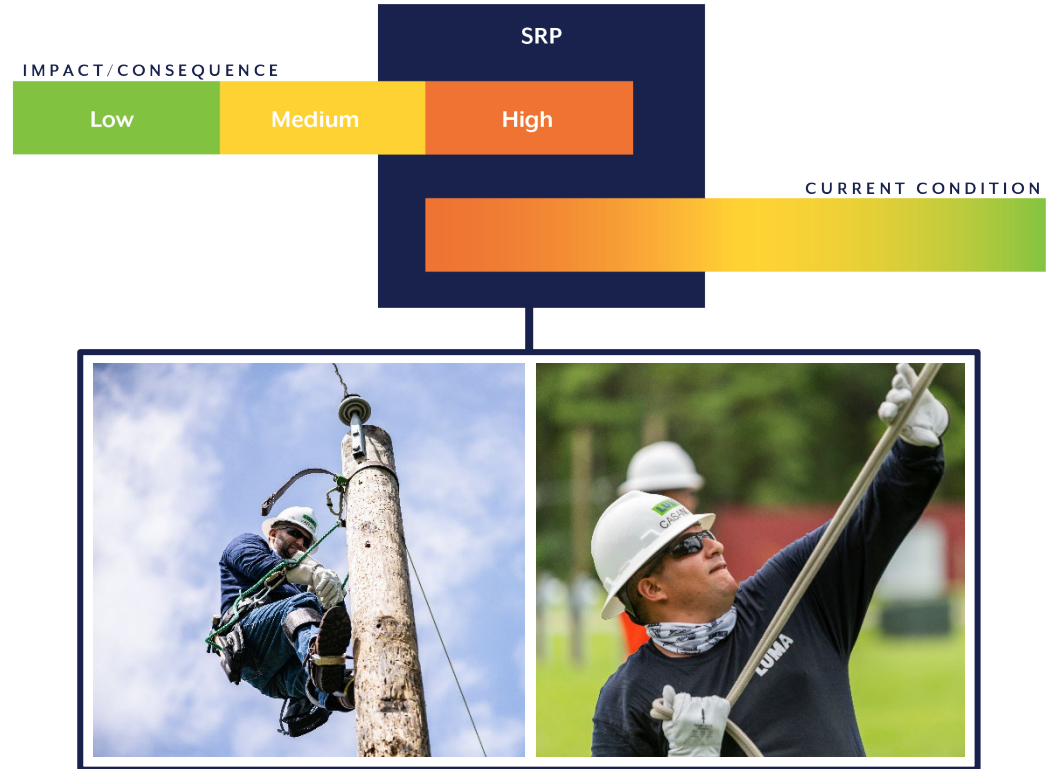
What we have planned

System Remediation Plan

LUMA's SRP establishes our strategy to remediate, repair, replace and stabilize transmission and distribution system equipment, systems, practices and services. The initiatives are foundational to recovery and transformation and address the most dangerous and fragile aspects of Puerto Rico's electricity system. They will enable LUMA to operate and maintain Puerto Rico's electricity system in compliance with industry standards, contractual requirements and applicable laws.

The SRP is a culmination of the assessments LUMA performed during the front-end transition period. LUMA has planned for approximately \$4 billion in initiatives as part of the SRP and over \$10 billion in total improvement programs.

The SRP is our plan to address areas that are below standard and pose the highest risk to Puerto Ricans, including employees, and the system. It's a critical part of a larger set of improvement activities to recover and transform the grid.

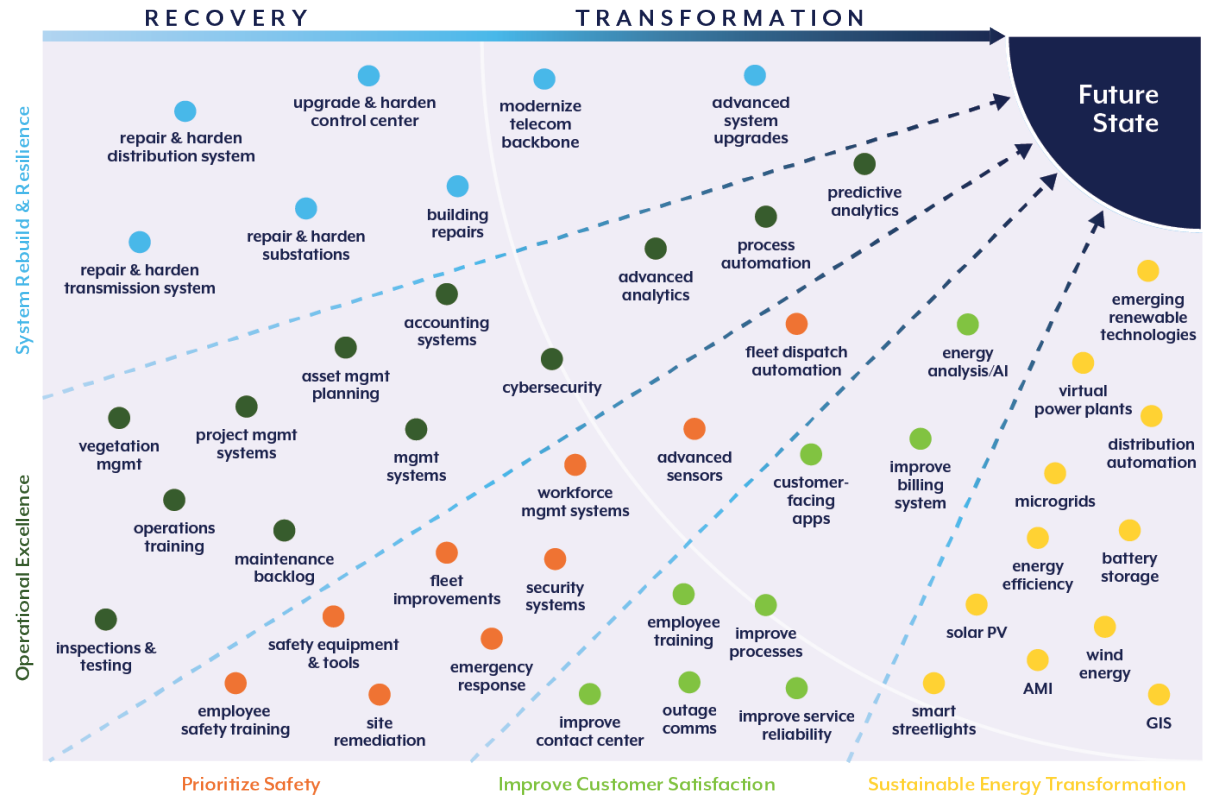


Where we're going

LUMA's overall strategy to implement the change mandated in public policy is composed of two phases: Recovery and Transformation.

The **RECOVERY PHASE** will involve restoring the utility's infrastructure and processes to a well-functioning state, repairing the grid in the near term and leveraging the experience of current PREPA employees who will be joining LUMA — while implementing new processes, systems and training to more effectively manage fundamental utility operations.

As the utility recovers, LUMA will accelerate the pace of **TRANSFORMATION**, in accordance with the government's goals and policy, by redesigning the utility to meet Puerto Rico's energy needs for the coming decades, with a focus on renewable generation and distributed energy resources made possible through advanced operational systems and technologies. Many of these Transformation programs will begin alongside Recovery programs.



How we'll get there

Initial Budgets

The initial budgets cover all LUMA activities during the first three years of operations and include activities associated with the system remediation plan and performance metrics. We've identified 69 remediation and improvement activities to start the utility on the path to recovery and transformation by implementing public policy, improving performance and strategically deploying federal funds. We'll start most these programs during our first year of operations.

WHAT'S INCLUDED

Our initial budgets comprise operating and capital (federally funded and ratepayer funded) budgets for transmission and distribution.

LUMA
budget
proposal

No
Increase
in Base Rate

* LUMA is not applying for a base rate increase. LUMA does not have legal authority to determine electric rates. PREB, the independent and specialized body to regulate, monitor and enforce energy public policy of the Government of Puerto Rico, is authorized by Puerto Rico laws to evaluate and approve rates.

How we'll be accountable

Performance Metrics

LUMA assessed PREPA's performance using industry-standard methods. We analyzed PREPA's existing processes, systems and data, identifying gaps as compared to electric utility industry practices. Results (including through independent third-party sources) show that PREPA consistently ranks at the bottom of all North American utilities.

CUSTOMER SERVICE

(J.D. Power)

Lowest of 144
North American utilities

47% lower than the next lowest

SAFETY INCIDENTS

(OSHA, 2019 stats)

5 times
the industry average
for workplace incidents

200% more than the next-worst utility

POWER OUTAGES

(IEEE)

9 times
longer & more frequent
than median performers

LUMA WILL BE ACCOUNTABLE.

Puerto Ricans deserve accountability from their electricity service provider.

LUMA's performance metrics are numeric indicators and scorecards of how well we're doing. Tailored to the electric utility business and shared with the public to ensure transparency, they use industry standards to measure performance and show how well we advance public policy. Each indicator measures LUMA's performance in key functional areas such as customer service, safety, reliability and financial management.

LUMA's Proposed Performance Metrics

CUSTOMER SATISFACTION

- J.D. Power Customer Satisfaction Survey: Residential & Business Customers
- Average Speed of Answer
- Customer Complaint Rate
- Abandonment Rate

SAFETY

- OSHA Recordable Incident Rate
- OSHA Fatalities
- OSHA Severity Rate
- OSHA DART Rate

TECHNICAL

- System Average Interruption Frequency Index (SAIFI)
- System Average Interruption Duration Index (SAIDI)
- Inspections (Distribution & Transmission Lines, Substations)

FINANCIAL

- Operating Budget
- Capital Budget: Federally Funded & Ratepayer Funded
- Days Sales Outstanding: General & Government Customers
- Overtime

EMERGENCY RESPONSE METRICS

How we'll operate the grid

System Operation Principles

The SOP defines how the bulk power system will operate. There will be effective rules for efficient energy generation, reliable energy delivery and transparent decision-making on how the grid is managed. Real-time dispatch, resource and system planning and emergency procedures will be focused on achieving outcomes for the overall system and customers. This will become increasingly important as the transmission and distribution system is improved and renewables become a larger source of energy.



What this means

- LUMA will dispatch energy as economically as possible while maintaining reliability to **reduce fuel costs and emissions**
- With defined rules and system improvements, we'll be able to "see" outages before they happen to **avoid load-shedding**, expedite response times and **shorten most customer outages**
- You'll see **improved response to emergencies** such as major hurricanes and earthquakes
- The SOP will create the basis for developers and stakeholders to better understand grid issues and constraints, allowing for more competitive, tailored proposals for **new renewables and value-added solutions for Puerto Rico**

defined
operation
principles

Improved Reliability



What to expect

Pending the required approvals of our regulatory filings, we will commence operations in June 2021.

Following commencement, you'll see:

- Improvement in contact center responsiveness
- Clearing of vegetation from utility rights of way
- Walkdowns and inspections of areas experiencing a significant number or size of outages
- Improved public safety, including streetlights

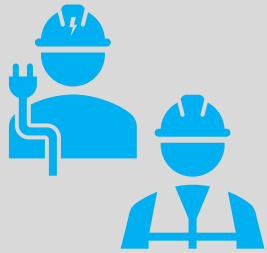
We want to be a company that Puerto Rico is proud of and that Puerto Ricans want to work for. To get there, we'll

- Prioritize safety
- Improve customer satisfaction
- Rebuild the system and improve system resiliency
- Focus on operational excellence
- Ensure a sustainable energy transformation

We want you to have the safe, reliable energy you deserve.

LUMA's approach

People First. Safety Always.



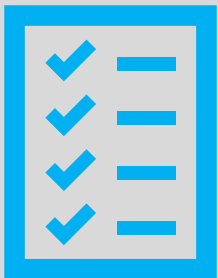
- *LUMA puts people first, customers and employees*
- *The health and safety of our employees and customers are our top priority*

Data Driven Decision Making



- *Collect data where possible and in line with prudent utility practices*
- *Adhere to codes and standards to collect, validate and review data*
- *Use data to drive decisions, assess risk and report results*

Leading with Solutions



- *Assess the situation, apply expertise, develop solutions for the path forward*
- *Analyze alternatives, compare and contrast trade-offs and recommend cohesive solutions*

Transparent and Collaborative



- *Consider customer impacts and engage with PREB, key stakeholders and customers*
- *Lead ongoing engagement*
- *Ensure accountability*



Outline

- Summary
- Process
- Recovery & Transformation Framework Discussion
- SRP Screening
 - Organizational Systems & Processes
 - Physical Assets
- Remediated State
- SRP Progression & Management
- Conclusion



Summary

SRP Summary

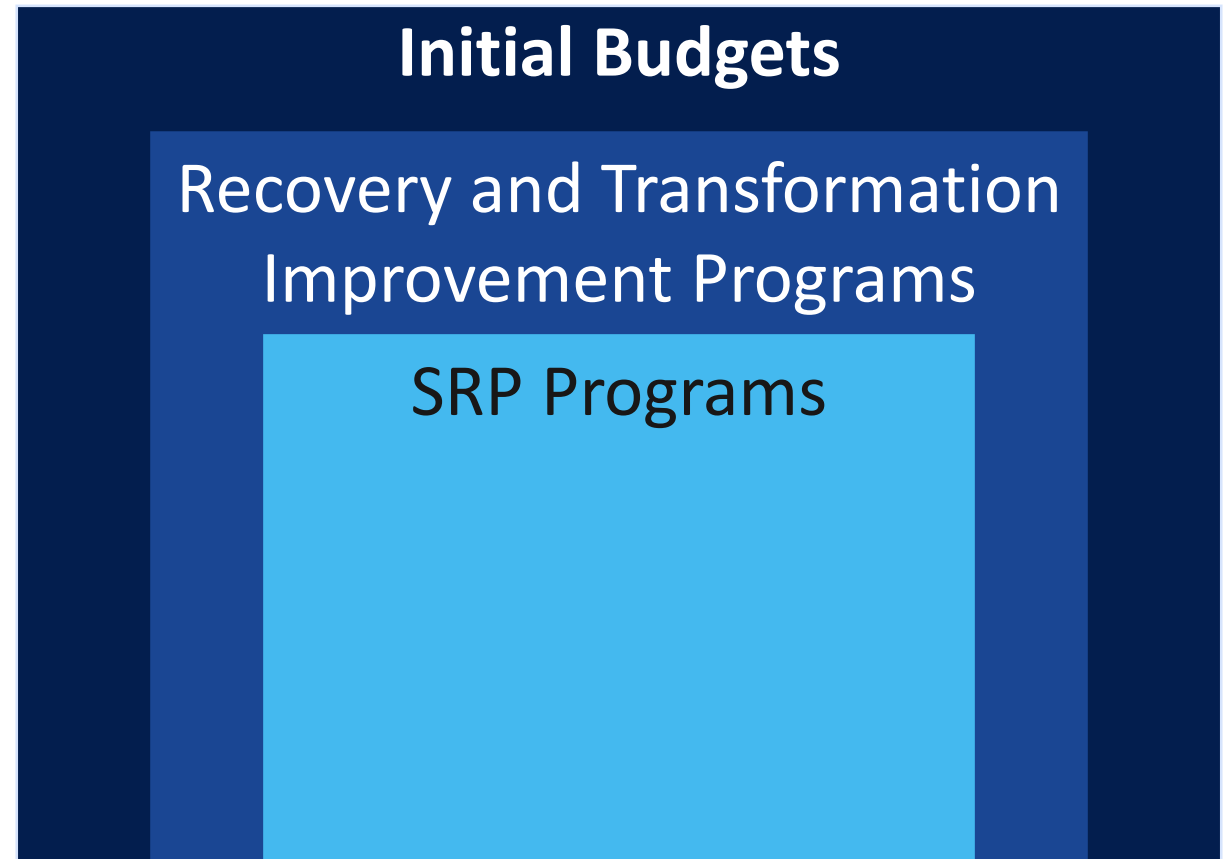
The OMA recognized that “certain components of the Transmission and Distribution (T&D) System and the manner which the T&D System is operated do not currently meet the standards of performance required under [the OMA]" (OMA, Section 4.1 (d)(i))

And required that LUMA establish "a plan to remediate, repair, replace and stabilize T&D System equipment, systems, practices and services, as may be needed, to enable LUMA to perform the O&M Services in compliance with the Contract Standards" (OMA, Section 4.1 (d)(ii))



SRP Summary - Relationship to LUMA's Initial Budgets

- System Remediation Plan (SRP) consists of a subset of Improvement Program activities within the Initial Budgets
- Within each fiscal year of the Initial Budgets ~45% – 50% of total expenditures are within the SRP



SRP Summary - Relationship to the Recovery & Transformation Framework

- 46 of the total 69 Recovery and Transformation Improvement Programs are also within the SRP
 - Average of 58% of program expenditures during the first three years are on SRP activities¹



Process

Process

- FET activities related to SRP –
 - Consistent across all deliverables:
 - Conducted a system-wide gap assessment
 - Developed a comprehensive set of initiatives and consolidated into programs
 - Prioritize and sequence programs
 - Specific to SRP development:
 - Conducted a screening process to delineate SRP programs, which focus only on those items that posed the highest risk



Gap Assessment

LUMA applied its collective knowledge of the industry, Prudent Utility Practice, OMA requirements and applicable codes and standards to conduct a broad, preliminary assessment of the condition of the utility's physical assets and management practices.

The objectives of this assessment were to understand the following:

The organization's processes, controls, communication and safety protocols, technologies and tools

Capabilities across general management and business specific functions

Condition of T&D assets, including supporting physical infrastructure and temporary restoration work

Areas representing significant improvement opportunities ("major gaps")

The process undertaken to complete the Gap Assessment:

Document Key Observations and Contributors



Identify Gaps



Assessed and Scored Maturity



Consolidated the Gap Analysis Results



Organization Maturity Scoring Criteria and Asset Health Condition Score

Score	Unfocused 1	Aware 2	Developing 3	Competent 4	Excellent 5
Scoring Criteria	<p>The organization has not recognized the need for the basic elements and/or there is no evidence of commitment to put them in place.</p> <p>Work is performed informally or ad hoc</p> <p>Processes are undocumented and/or undefined</p> <p>Issues present major exposures</p> <p>Required expertise/training does not exist, capacity is insufficient or both</p>	<p>The organization has a basic understanding of the need to address these elements and is in the process of deciding how/starting to apply them.</p> <p>Preliminary documentation of processes being compiled</p> <p>Performance is unmeasured</p> <p>Little organizational effort to identify issues</p>	<p>The organization has identified the means to address the major elements and some work is progressing on implementation.</p> <p>Basic performance can be measured</p> <p>Performance is minimally adequate</p> <p>Processes are documented and defined</p> <p>Issue identification is performed</p> <p>Competitively sub-par</p>	<p>All elements are in place and are implemented in the day-to-day operations of the business.</p> <p>Major improvements made</p> <p>Performance is adequate and continuously measured/verified</p> <p>Processes are managed (followed consistently) with appropriate controls</p> <p>Disciplined issues identification</p> <p>Competitively at par</p>	<p>The organization is using processes and approaches beyond the basic requirements, driving to achieve maximum value.</p> <p>Verifiable issues/ defect reductions and or practices continuous improvement</p> <p>Deliberate effort to optimize/improve processes</p> <p>Competitively well positioned to competitively differentiated</p>

Score Value	Health/Condition
4	System like new (replaced or refurbished within the last five years)
3	System has been maintained with general operations and maintenance on a routine basis; no major issues noted
2	Deficiencies were noted or components were out of service
1	Major issues noted causing a safety, reliability or unit output issue
0	End of life or not operational



Initial Assessment Findings and Observations

LUMA's initial assessment of the utility, its assets and organization, reveals infrastructure and organizational systems that are in significant need of improvement.

Key Organization Health Findings

Workplace Health and Safety
Maintenance Practices
Project Management and Control
Policies and Procedures
Absence of Accurate Data

Key Asset Condition Assessment Findings

Substation and Transmission Centers
Transmission System Hazards
Telecommunications Systems and Networks
Distribution System
System Operations Technologies and Facilities

Examples of assets in poor condition



Compromised wood quality at the base of pole, with pole/transformer in contact with overhead distribution circuits located in a publicly accessible parking lot and close to a roadway



Compromised substation structure, with structural support arm broken/disconnected, and potential for a substation outage due to proximity to energized equipment



Compromised wood quality at base of pole, located near public walkway and roadway



Findings of Assessments

- **Organizational Systems and Processes** require significant improvement
 - PREPA's ability to provide solutions to its assessed problems range from:
 - Having a basic understanding of the need to resolve noted deficiencies and being in the process of starting or deciding on how best to address them,
 - to being unaware of or opting not to comply with industry norms
- **Physical Assets** are in poor condition from storm damage and deferred maintenance
 - Lack of accurate data to inform business and asset management decisions is particularly prevalent when assessing the health of the T&D System
 - PREPA has neither had nor performed an inspection program to document the health condition of its system assets

Recovery & Transformation Framework



Recovery & Transformation Framework

- LUMA conducted a strategic planning process to synthesize the Government of Puerto Rico's public policies into a comprehensive set of guiding principles that ensure that LUMA's plans align with Puerto Rico's public policy objectives and customer needs
- The outcome of this process was a Recovery and Transformation Mission for the T&D System along with a set of Goals for making progress towards that mission in the near term
- LUMA used a prioritization framework to qualitatively value each program's contribution to our key Goals and Objectives. A qualitative prioritization matrix was used to guide investment planning, combined with subject matter expert judgement of operational considerations and needs



LUMA's Recovery & Transformation Mission & Goals

Our mission

Recover and transform the utility to deliver customer-centric, reliable, resilient, safe, sustainable electricity at reasonable prices.

KEY GOALS



PRIORITIZE SAFETY

Reform utility activities to support a strong safety culture focused on employee safety and the safety of the people of Puerto Rico



IMPROVE CUSTOMER SATISFACTION

Transform operations to deliver a positive customer experience and deliver reliable electricity at reasonable prices



SYSTEM REBUILD AND RESILIENCY

Effectively deploy federal funding to restore the grid and improve the resilience of vulnerable infrastructure



OPERATIONAL EXCELLENCE

Enable employees to pursue operational excellence through new systems, processes and training



SUSTAINABLE ENERGY TRANSFORMATION

Modernize the grid and the utility to enable the sustainable energy transformation



Detailed Goals & Objectives

Goal	Objectives
Prioritize Safety	<ul style="list-style-type: none"> Promote a safe workplace Implement effective public safety practices
Improve Customer Satisfaction	<ul style="list-style-type: none"> Deliver a positive customer experience Increase Service Reliability Deliver electricity at reasonable prices
System Rebuild and Resiliency	<ul style="list-style-type: none"> Effectively deploy federal funding Restore damaged grid infrastructure Improve resiliency of vulnerable infrastructure
Operational Excellence	<ul style="list-style-type: none"> Enable systematic management of the business Pursue project delivery excellence Enable employees to execute business operations systematically
Sustainable Energy Transformation	<ul style="list-style-type: none"> Modernize the grid Enable the digital transformation Enable the sustainable energy transformation



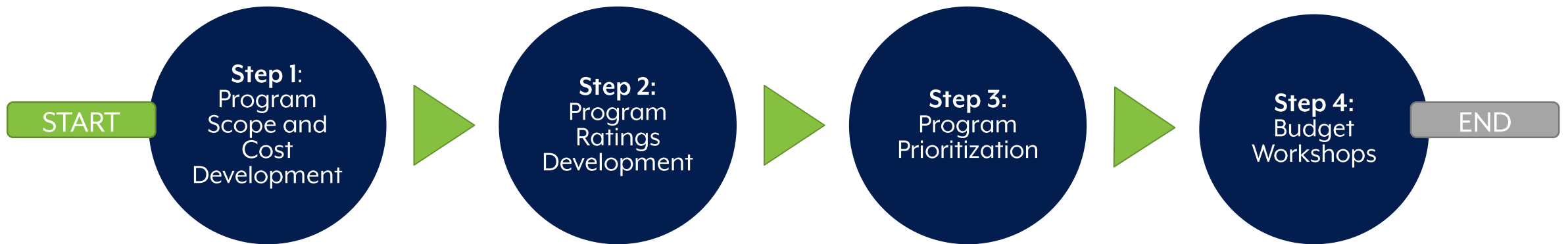
Recovery and Transformation Framework Supports Public Policy

Including but not limited to:

- Grid modernization by incorporating technology as appropriate to attain the transformation goals without incurring excessive costs. Act 17-2019, Section 1.5(9)(g).
- Maintain the electric infrastructure in optimal conditions to ensure reliability, resiliency and safety of electric service. Act 17-2019, Section 1.5 (9)(e).
- Guarantee every consumer's right to receive a reliable, stable, and excellent electric power service at a cost that is accessible, just, and reasonable, a transparent and easy to understand bill, and a fast service response. Act 17-2019, Section 1.5(10)(a).
- Adoption of specific cyber security measures to effectively prevent and manage cyber-attacks. Act 17-2019, Section 1.5 (8)(d).
- Conduct improvements to the Electric System so that it is robust, resilient and stable, in accordance with the modernization and reconstruction priorities established in Section 1.15 of Act 17-2019.
- Provide an adequate, reliable, safe, efficient service, among other things. Act 57-2014, Section 6.21(a).
- Adopt reasonable and fair norms and practices to guarantee the precision of the equipment they use to provide service. Act 57-2014, Section 6.28(b).



Process Map



Prioritization & Sequencing Process

- LUMA used a prioritization framework to qualitatively value each program's contribution to our key Goals and Objectives
 - Identify an initial list of the highest priority improvement programs, which was the starting point to provide a basis for a series of subsequent budget planning workshops and sequencing based on operational and logistical risk and interdependencies
- Consideration of Funding Sources:
 - Federally Funded: Federal disaster recovery aid provides a large source of funding to repair damaged physical infrastructure
 - Non-Federally Funded: Some of the basic SRP projects and transformation grid modernization investments must be funded from non-federal capital
- Prioritized and sequenced remaining investment programs to ensure the "right investments are completed at the right time" to deliver value to our customers

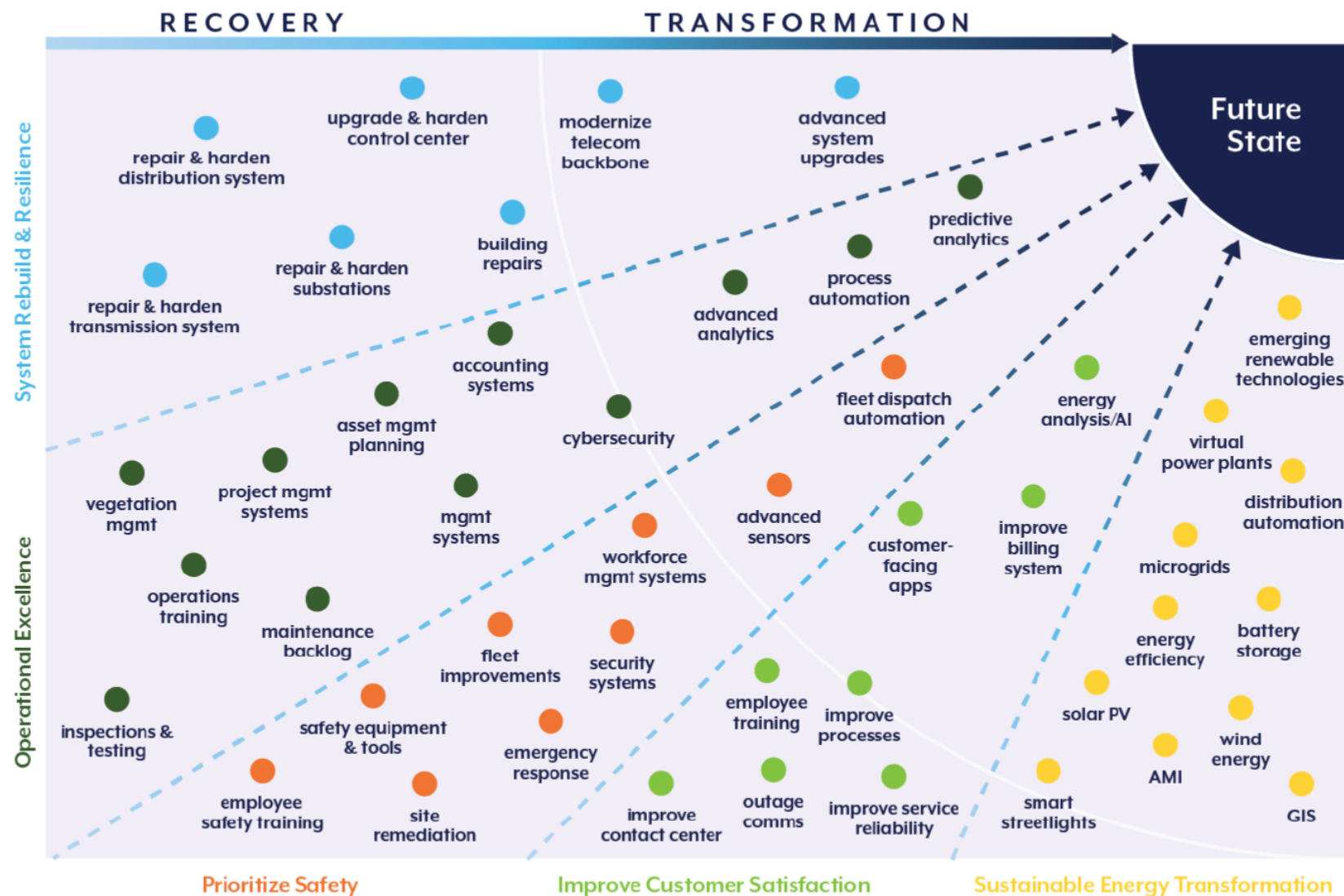


Recovery and Transformation Road Map

- Provides a comprehensive set of guiding principles that align LUMA's strategy and operations with Puerto Rico's public policy objectives and customer needs
- This effort resulted in Recovery & Transformation programs design to deliver value to customers in accordance with policy and contractual requirements within annual budget constraints
- The near-term emphasis of LUMA's investment plan is on foundational recovery programs to improve both infrastructure and organization health, while enabling an increasing focus on Transformation programs
- This process was not used to cut programs off the list, it was meant to schedule activities with some initiatives with less benefits across Goals being extended across multiple years



Recovery and Transformation Roadmap



SRP Screening



SRP Screening

- Purpose of the SRP is to provide an appropriate transition from the current state to one where the minimum conditions are met for Contract Standards, including Prudent Utility Practice

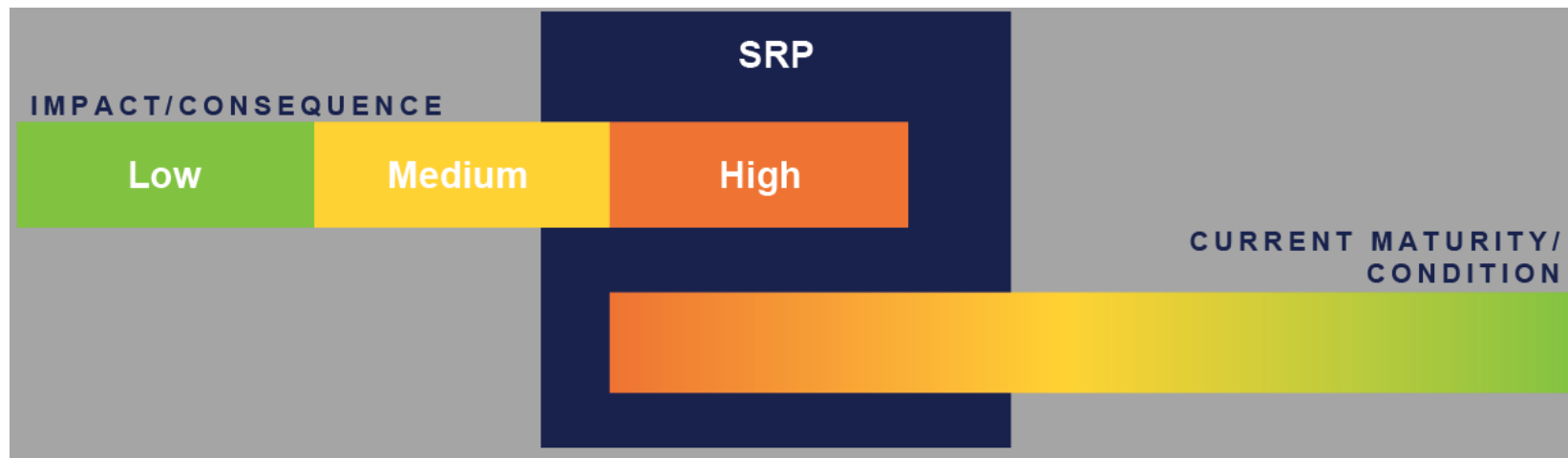
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And required that LUMA establish "a plan to remediate, repair, replace and stabilize T&D System equipment, systems, practices and services, as may be needed, to enable LUMA to perform the O&M Services in compliance with the Contract Standards" (*OMA, Section 4.1 (d)(ii)*)



Focus of System Remediation Plan

- System Remediation Plan focuses on the items within the Recovery and Transformation Framework that address the highest potential risks to the utility, its employees and the people of Puerto Rico
1. Utility wide organizational maturity and asset health assessment (likelihood)
 2. Component (organizational) and inspection (assets) impact assessment (impact)
 3. Once a program was selected as a SRP program, a remediated state was determined. Reaching remediation does not equal complete correction of deficiencies, it means a *minimum state* to meet Contract Standards



SRP Screening – Organizational



Component Business Model (CBM)

- CBM is based on a technique developed and used to strategically model and analyze enterprise competencies
- A CBM shifts the focus from an organizational view to one focused on critical skills / competencies
- A standard utility centric framework was selected as a starting point for identifying business competencies and components, then modified for best fit
- These competencies and components formed the basis from which LUMA assessed both the maturity (likelihood/ probability) and the impact/ consequences of the gaps identified
- This approach allowed LUMA to identify competencies across the utility

	Asset Planning & Construction	Asset Operations	Asset Maintenance	Supply & Demand Management	Meter Measurement Data Mgmt	Marketing & Sales	Customer Service & Billing	Corporate	Regulatory/ Corporate Governance	Stakeholder Relationships and External Comms	Finance	Human Capital Management (HCM)	Supply Chain Management / Procurement	Information Technology
Strategy & Planning	Asset Strategy	Operations Strategy	Asset Maintenance Strategy	Demand Side Management Strategy	Meter Data Strategy	Customer Acquisition Strategy	Customer Service Strategy	Business Strategy	Corporate Governance	Industry Policy Development Strategy	Corporate Financial/ Treasury Strategy	HCM Strategy & Programs	Supply Chain Strategy	IT Strategy
	Construction Strategy	Emergency Planning		Supply & Demand Planning		Key Account Strategy	Energy Conservation Strategy	Risk Strategy	Regulatory Strategy		Shared Services Strategy	Succession Planning Strategy	Procurement Strategy	IT Delivery Strategy
	Capital Program Management	Fleet Strategy				Marketing Strategy		Operational Strategy & Planning	Health, Safety & Environmental (HSE) Strategy					Cybersecurity Strategy
						Sales Strategy		Office Facilities Strategy	OMA Strategy					
Control & Manage	Construction Design & Planning	Asset Operations Planning	Maintenance Planning	Supply & Demand Management	Meter Data Policies & Standards	Marketing Campaign Mgmt & Monitoring	Customer Service Standards, Policies, Procedures	Business Portfolio Management	Regulatory Policies and Procedures	Stakeholder Management Standards/ Policies	Corporate Financial Policies & Procedures	HCM Policies & Procedures	SCM Policies & Procedures	IT Policies and Procedures
	Construction Approval and Permissions	Operations Performance Management	Maintenance Performance Management		Measurement Point Info Management	Rate Management	Billing/ Credit/ Collections Policies and Procedures	Enterprise Portfolio Management	Regulatory & Market Compliance		Management Accounting	Human Capital Management	Procurement & Contract Management	IT Portfolio Value Management
	Construction Financing	Demand Side Management Monitoring	Maintenance Management			Market Research	Customer Service Delivery Management	Risk Management	HSE Policies and Procedures	Stakeholder Relationship Management	Budgeting/ Forecasting	HCM Performance Management	Inventory Management	IT Delivery Management
	Construction Performance Management	Transmission Conditions Forecasting	Meter Service & Testing Management			Sales Performance Management	Customer Service Performance Management	Federal funding relationship management	OMA relationship management	Community Affairs Management	Cash Management	Learning Management	Storeroom/ Warehouse Management	IT Performance Management
	Construction Work Management	Fleet Management	Route Management			Sales Management	Customer Key Account Management	Office Facilities Management	Bankruptcy relationship management	Media and Public Relations	Shared Services Management	Resource Management	Contract Vendor Performance Management	Cybersecurity Management
		TSD Facilities Management					Billing / Contract Exception Management					Competency management		
Execute/ Operate	New Asset Construction	Asset Operations	Asset Inspection and Maintenance	Dispatch and GenCo Power Purchase Operating Agreement	Meter Data processing	Marketing Execution	Customer Interaction Management	Risk Response	Regulatory Interaction	Stakeholder Info Management	Financial Accounting	Execute HCM Activities	Procurement	Service Delivery
	Asset Commissioning	Outage/ Derate Management	Environmental Management		Calculate billing determinants	Sales Execution	Customer Event Management	Federal Funding Execution	Regulatory Compliance	Stakeholder Interaction Management	Shared Services Execution		Storeroom/ Warehouse Operations	Service Support
	New Asset Decommissioning	System Monitoring & Control	Vegetation Management		Perform reconciliation and settlement		Billing & Collections	Office Facilities Operations	Health, Safety & Environmental Enforcement	Community Affairs Program Execution			Execute Contract/ Vendor Performance Activities	IT Performance Analysis
		Field Operations			Exception dispute management		Payment Processing		Execute OMA	Media and Public Relations Execution				Cybersecurity Execution and Response
		Incident/ Safety Management							Bankruptcy reporting and execution					
		Fleet Operations												

Application of the CBM

1. Gaps and scoring completed during the assessment were mapped onto the CBM business components according to the maturity scale
2. Business components were rated based on the impact/ consequence for the overall utility and delivery of service should this business component not be carried out
3. The result is that every business component is categorized as high, medium or low in terms of estimated potential impact
4. Improvement Programs were mapped to components to determine inclusion in the SRP, only programs that addressed a high impact and a low maturity were included in the SRP
5. Remediation will be achieved when all the components with low maturity and high impact are at maturity level “3 – Developing”



Organization Maturity Scoring Criteria and Asset Health Condition Score

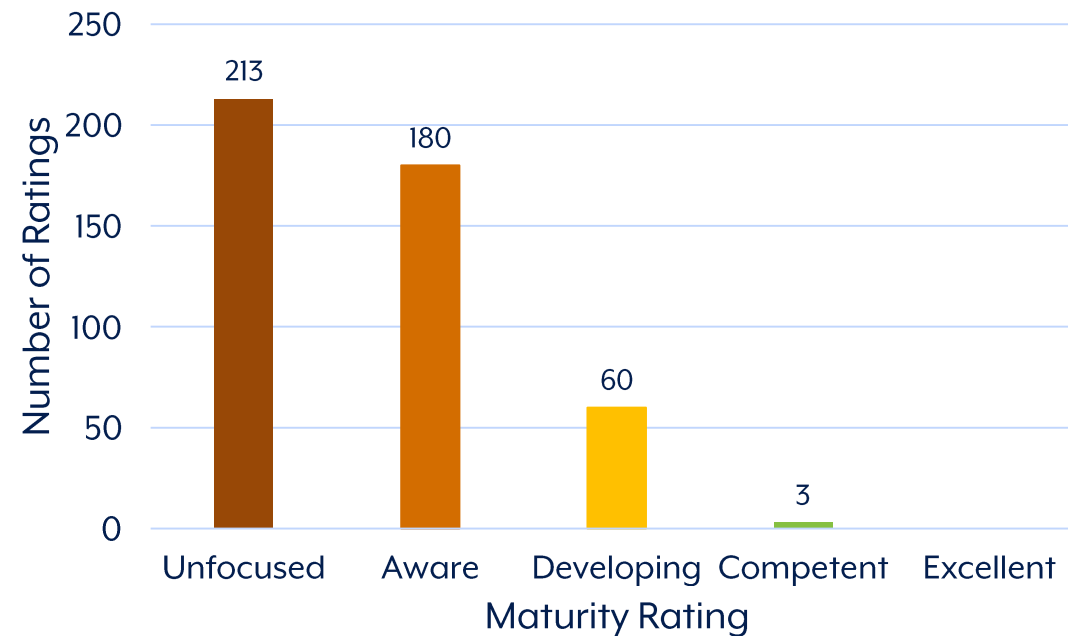
- SRP screening utilized the results of the organizational gap assessment

Score	Unfocused 1	Aware 2	Developing 3	Competent 4	Excellent 5
Scoring Criteria	<p>The organization has not recognized the need for the basic elements and/or there is no evidence of commitment to put them in place.</p> <p>Work is performed informally or ad hoc</p> <p>Processes are undocumented and/or undefined</p> <p>Issues present major exposures</p> <p>Required expertise/training does not exist, capacity is insufficient or both</p>	<p>The organization has a basic understanding of the need to address these elements and is in the process of deciding how/starting to apply them.</p> <p>Preliminary documentation of processes being compiled</p> <p>Performance is unmeasured</p> <p>Little organizational effort to identify issues</p>	<p>The organization has identified the means to address the major elements and some work is progressing on implementation.</p> <p>Basic performance can be measured</p> <p>Performance is minimally adequate</p> <p>Processes are documented and defined</p> <p>Issue identification is performed</p> <p>Competitively sub-par</p>	<p>All elements are in place and are implemented in the day-to-day operations of the business.</p> <p>Major improvements made</p> <p>Performance is adequate and continuously measured/verified</p> <p>Processes are managed (followed consistently) with appropriate controls</p> <p>Disciplined issues identification</p> <p>Competitively at par</p>	<p>The organization is using processes and approaches beyond the basic requirements, driving to achieve maximum value.</p> <p>Verifiable issues/ defect reductions and or practices continuous improvement</p> <p>Deliberate effort to optimize/improve processes</p> <p>Competitively well positioned to competitively differentiated</p>

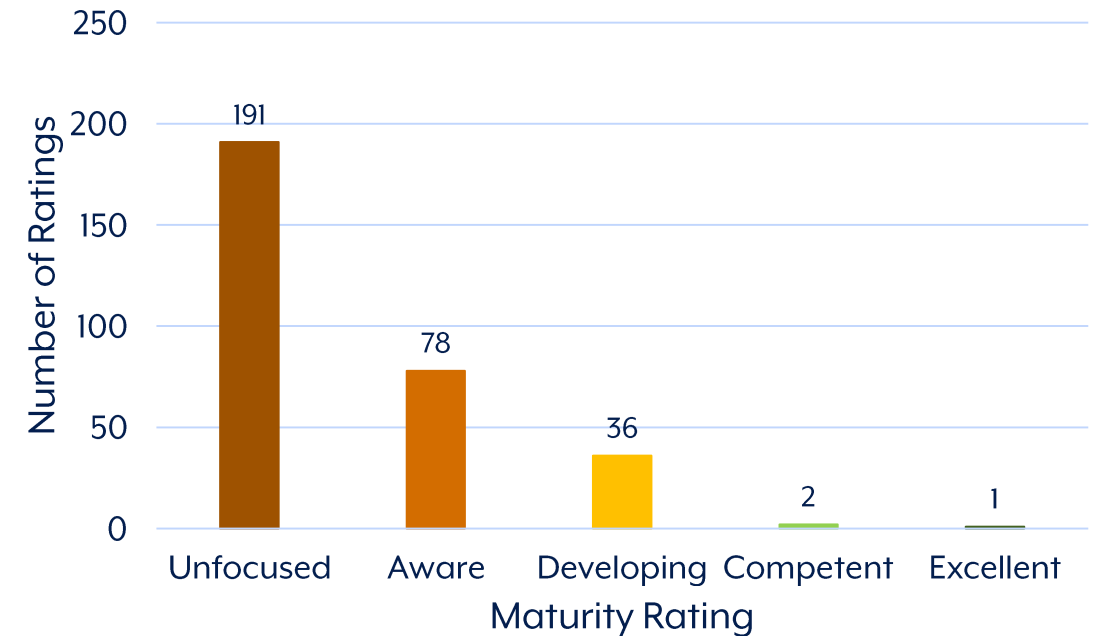
Initial Assessment Findings and Observations

- The observations made during the Organizational Health and Asset Assessments provides an estimation of the likelihood of failure

General Management Sub-Focus Areas



Core Business Sub-Focus Areas



Maturity Rating (Likelihood of Failure) Mapped onto CBM

	Asset Planning & Construction	Asset Operations	Asset Maintenance	Supply & Demand Management	Meter Measurement Data Mgmt	Marketing & Sales	Customer Service & Billing	Corporate	Regulatory/Corporate Governance	Stakeholder Relationships and External Comms	Finance	Human Capital Management (HCM)	Supply Chain Management / Procurement	Information Technology
Strategy & Planning	Asset Strategy	Operations Strategy	Asset Maintenance Strategy	Demand Side Management Strategy	Meter Data Strategy	Customer Acquisition Strategy	Customer Service Strategy	Business Strategy	Corporate Governance	Industry Policy Development Strategy	Corporate Financial Treasury Strategy	HCM Strategy & Programs	Supply Chain Strategy	IT Strategy
	Construction Strategy	Emergency Planning		Supply & Demand Planning		Key Account Strategy	Design Construction Strategy	Risk Strategy	Regulatory Strategy		Shared Services Strategy	Sustainability Planning Strategy	Procurement Strategy	IT Delivery Strategy
	Capital Program Management	Asset Strategy				Marketing Strategy		Operational Strategy & Planning	Health, Safety & Environmental (HSE) Strategy					Cybersecurity Strategy
						Sales Strategy		Office Facilities Strategy	OMA Strategy					
Control & Manage							Federal Funding Strategy	Bankruptcy Strategy	Bankruptcy Strategy					
	Construction Design & Planning	Asset Operations Planning	Maintenance Planning	Supply & Demand Management	Meter Data Policies & Standards	Marketing Campaign Mgmt & Measurement	Customer Service Standards, Policies, Procedures	Business Portfolio Management	Regulatory Policies and Procedures	Stakeholder Management Standards/ Policies	Corporate Financial Policies & Procedures	HCM Policies & Procedures	SCM Policies & Procedures	IT Policies and Procedures
	Construction Approval and Permitting	Operations Performance Management	Maintenance Performance Management		Measurement Point Info Management	Data Management	Bring/Coast, Connection Policies and Standards	Enterprise Portfolio Management	Regulatory Compliance	Stakeholder Relationship Management	Management Accounting	Human Capital Management	Procurement & Contract Management	IT Portfolio Value Management
	Construction Financing	Demand Side Management Monitoring	Maintenance Management			Market Research	Customer Service Delivery Management	Risk Management	HSE Policies and Procedures	Stakeholder Relationship Management	Budgeting/ Forecasting	HCM Performance Management	Inventory Management	IT Delivery Management
	Construction Performance Management	Transmission Conditions Forecasting	Asset Service & Testing Management			Sales Performance Management	Transmission Service Performance Management	Federal Funding Relationship Management	OMA relationship management	Community Affairs Management	Cash Management	Learning Management	Storeroom/ Warehouse Management	IT Performance Management
	Construction Spill Management	Fleet Management	Route management			Sales Management	Customer/ Key Account Management	Office Facilities Management	Bankruptcy relationship management	Media and Public Relations	Shared Services Management	Resource Management	Customer Vendor Performance Management	Cybersecurity Management
		TSA Facilities Management					Bring / Connect Exception Management					Competence Management		
Execute/ Operate	New Asset Construction	Asset Operations	Asset Inspection and Maintenance	Dispatch and Service Order Workflow Operating Agreement	Meter Data processing	Marketing Execution	Customer Interaction Management	Risk Response	Regulatory Interaction	Stakeholder Info Management	Financial Accounting	Execute HCM Activities	Procurement	Service Delivery
	Asset Commissioning	Storage/ Decommissioning	Environmental Management		Calculate billing determinants	Sales Execution	Customer Asset Management	Federal Funding Execution	Regulatory Compliance	Stakeholder Interaction Management	Shared Services Execution		Storeroom/ Warehouse Operations	Service Support
	Asset Decommissioning	System Monitoring & Control	Vegetation Management		Perform recalculation and settlement		Alarms & Collections	Office Facilities Operations	Health, Safety & Environment Enforcement	Community Affairs Program Execution			Execute Contract/ Vendor Performance Activities	IT Performance Analysis
		Field Operations			Exception dispute management		Payment Processing		Execute OMA	Community Affairs Program Execution				Cybersecurity Execution and Response
		Incident/ Safety Management							Bankruptcy reporting and execution	Media and Public Relations Execution				
		Fleet Operations												

Green	Excellent
Yellow	Competent
Orange	Developing
Red	Aware
Dark Red	Un focused

- Using the results of the gap assessment scoring, LUMA mapped maturity ratings onto the CBM
- Results show that all the business components have a maturity rating at or below at 2 (aware) and ~70% are rated 1 (unfocused)

Components Consequence Evaluation

- Then components were evaluated for impact / consequence should the component not be carried out
 - Low
 - Medium
 - High
- Categories – Safety, delivery of service and financial impact

	Asset Planning & Construction	Asset Operations	Asset Maintenance	Supply & Demand Management	Meter Measurement Data Mgmt	Marketing & Sales	Customer Service & Billing	Corporate	Regulatory/ Corporate Governance	Stakeholder Relationships and External Comms	Finance	Human Capital Management (HCM)	Supply Chain Management/ Procurement	Information Technology	
Strategy & Planning	Asset Strategy	Operations Strategy	Asset Maintenance Strategy	Demand Side Management Strategy	Meter Data Strategy	Customer Acquisition Strategy	Customer Service Strategy	Business Strategy	Corporate Governance	Industry Policy Development Strategy	Corporate Financial/ Treasury Strategy	HCM Strategy & Programs	Supply Chain Strategy	IT Strategy	Safety, Delivery, Financial Impact
	Construction Strategy	Emergency Planning		Supply & Demand Planning		Key Account Strategy	Energy Conservation Strategy	Risk Strategy	Regulatory Strategy		Shared Services Strategy	Succession Planning Strategy	Procurement Strategy	IT Delivery Strategy	
	Capital Program Management	Fleet Strategy				Marketing Strategy		Operational Strategy & Planning	Health, Safety & Environmental (HSE) Strategy					Cybersecurity Strategy	
						Sales Strategy		Office Facilities Strategy	OMA Strategy						
Control & Manage								Federal funding strategy	Bankruptcy Strategy						High: Performance directly correlates to one or more impact / consequence categories Medium: Performance only correlates to any impact / consequence categories loosely / indirectly Low: Performance does not directly correlate to any impact / consequence categories
	Construction Design & Planning	Asset Operations Planning	Maintenance Planning	Supply & Demand Management	Meter Data Policies & Standards	Marketing Campaign Mgmt & Monitoring	Customer Service Standards Policies, Procedures	Business Portfolio Management	Regulatory Policies and Procedures	Stakeholder Management Standards/ Policies	Corporate Financial Policies & Procedures	HCM Policies & Procedures	SCM Policies & Procedures	IT Policies and Procedures	
	Construction Approval and Permissions	Operations Performance Management	Maintenance Performance Management		Measurement Point Info Management	Rate Management	Billing Cycle/ Collections Policies and Standards	Enterprise Portfolio Management	Regulatory Compliance	Stakeholder Relationship Management	Management Accounting	Human Capital Management	Procurement & Contract Management	IT Portfolio Value Management	
	Construction Financing	Demand Side Management Monitoring	Maintenance Management			Market Research	Customer Service Delivery Management	Risk Management	HSE Policies and Procedures	Community Affairs Management	Budgeting/ Forecasting	HCM Performance Management	Inventory Management	IT Delivery Management	
	Construction Performance Management	Transmission Conditions Forecasting	Meter Service & Testing Management			Sales Performance Management	Customer Service Performance Management	Federal funding relationship management	OMA relationship management	Media and Public Relations	Cash Management	Learning Management	Storesroom/ Warehouse Management	IT Performance Management	
	Construction Work Management	Fleet Management	Route management			Sales Management	Customer/ Key Account Management	Office Facilities Management	Bankruptcy relationship management		Shared Services Management	Resource Management	Contract Vendor Performance Management	Cybersecurity Management	
Execute/ Operate		T&D Facilities Management					Billing / Contract Exception Management					Competency Management			
	New Asset Construction	Asset Operations	Asset Inspection and Maintenance	Dispatch and GenCo Power Purchase Operating Agreement	Meter Data processing	Marketing Execution	Customer Interaction Management	Risk Response	Regulatory Interaction	Stakeholder Info Management	Financial Accounting	Execute HCM Activities	Procurement	Service Delivery	
	Asset Commissioning	Outage/ Demand Management	Environmental Management		Calculate billing determinants	Sales Execution	Customer Event Management	Federal Funding Execution	Regulatory Compliance	Stakeholder Interaction Management	Shared Services Execution	Storesroom/ Warehouse Operations	Service Support		
	Asset Decommissioning	System Monitoring & Control	Vegetation Management		Perform reconciliation and settlement		Billing & Collections	Office Facilities Operations	Health, Safety & Environment Enforcement	Community Affairs Program Execution		Execute Contract/ Vendor Performance Activities	IT Performance Analysis		
		Field Operations			Exception dispute management		Payment Processing		Execute OMA	Media and Public Relations Execution			Cybersecurity Execution and Response		
		Incident/ Safety Management							Bankruptcy reporting and execution						
		Fleet Operations													

Screening for Impact and Maturity

Figure G-4. LUMA Component Business Model – High Impact Liability Current Capability View

	Asset Planning & Construction	Asset Operations	Asset Maintenance	Supply & Demand Management	Risk Measurement & Mitigation	Marketing & Sales	Customer Service & Billing	Operations	Regulatory/Compliance	Stakeholder Relationship and External Affairs	Finance	Human Capital Management (HRM)	Supply Chain Management (SCM)	Information Technology
Strategy & Planning	Asset Strategy	Operational Strategy	Asset Maintenance Strategy	Supply & Demand Management Strategy	Risk Measurement Strategy	Marketing & Sales Strategy	Customer Service Strategy	Operations Strategy	Regulatory/Compliance Strategy	Stakeholder Relationship Strategy	Finance Strategy	Human Capital Management Strategy	Supply Chain Management Strategy	Information Technology Strategy
	Construction Strategy	Emergency Response				Risk Focused Strategy	Energy Conservation Strategy	Grid Strategy	Regulatory Strategy		Shared Services Strategy	Information Security Strategy	Procurement Strategy	IT Strategy
	Capital Program Management	Asset Strategy				Marketing Strategy		Operational Strategy & Planning	Regulatory Strategy & Planning					Information Security Strategy
						Self-Service		Asset Safety Strategy	Asset Safety Strategy					
Control & Manage	Construction Design & Planning	Asset Operations Planning	Asset Maintenance Planning	Supply & Demand Management Planning	Risk Measurement Planning	Marketing Design & Planning	Customer Service Planning	Operations Planning	Regulatory Compliance Planning	Stakeholder Relationship Planning	Finance Planning	Human Capital Management Planning	Supply Chain Management Planning	Information Technology Planning
	Construction Approval and Decision	Asset Operations Approval	Asset Maintenance Approval	Supply & Demand Management Approval	Risk Measurement Approval	Marketing Approval	Customer Service Approval	Operations Approval	Regulatory Compliance Approval	Stakeholder Relationship Approval	Finance Approval	Human Capital Management Approval	Supply Chain Management Approval	Information Technology Approval
	Construction Planning	Asset Operations Planning	Asset Maintenance Planning	Supply & Demand Management Planning	Risk Measurement Planning	Marketing Planning	Customer Service Planning	Operations Planning	Regulatory Compliance Planning	Stakeholder Relationship Planning	Finance Planning	Human Capital Management Planning	Supply Chain Management Planning	Information Technology Planning
	Construction Performance Management	Asset Operations Performance Management	Asset Maintenance Performance Management	Supply & Demand Management Performance Management	Risk Measurement Performance Management	Marketing Performance Management	Customer Service Performance Management	Operations Performance Management	Regulatory Compliance Performance Management	Stakeholder Relationship Performance Management	Finance Performance Management	Human Capital Management Performance Management	Supply Chain Management Performance Management	Information Technology Performance Management
Execute/Operate	Construction Risk Management	Asset Operations Risk Management	Asset Maintenance Risk Management	Supply & Demand Management Risk Management	Risk Measurement Risk Management	Marketing Risk Management	Customer Service Risk Management	Operations Risk Management	Regulatory Compliance Risk Management	Stakeholder Relationship Risk Management	Finance Risk Management	Human Capital Management Risk Management	Supply Chain Management Risk Management	Information Technology Risk Management

Excellent
Competent
Developing
Aware
Un focused

- Combining the above two steps: Maturity (likelihood) Rating and Impact Evaluation (impact) resulted in the identification of components that were high-risk
- The high-risk components possessed both high likelihood (low maturity) and high impact
- These represent high risks for the utility and will require remediation through the implementation of the SRP

SRP Screening - Physical Assets



Asset Related Programs

- Asset risk was assessed based on samples of inspections (guided by checklists) and used the asset health condition assessment
- The health score includes information about condition (i.e., likelihood of failure) and consequence (i.e., impact of failure)
- Asset health, considered a measure of risk, was used as the basis for identifying SRP work

Score Value	Health/Condition
4	System like new (replaced or refurbished within the last five years)
3	System has been maintained with general operations and maintenance on a routine basis; no major issues noted
2	Deficiencies were noted or components were out of service
1	Major issues noted causing a safety, reliability or unit output issue
0	End of life or not operational



Asset Related Programs

- Since each program consists of multiple structures with varying health conditions, one overall program health condition score cannot be ascribed
- PREPA does not currently have comprehensive or detailed information about individual asset health in order to make the detailed assessments
 - At a program level, an impact / consequence screen was performed
 - Those programs evaluated with high impact or consequence of failure are included in the SRP
 - Programs selected as SRP based on consequence require further risk assessment to delineate SRP selection by asset



Asset Related Programs

- System wide field inspections will focus on estimating risk – both individual asset condition and impact or consequence of failure
- Assets with the lowest health scores (0 or 1) will be identified as SRP and reserved for near term remediation
 - These will be assets that have failed or are likely to fail imminently and where the consequence of such failure is substantial

SRP Criteria for Assets

- Assets identified in health category 0 or 1 will be included in the SRP
- Assets will be considered remediated when they no longer have a health category of 0 or 1



Remediated State



Remediated State

- Once SRP programs were selected, LUMA determined the point at which the gaps and asset deficiencies could be defined as *remediated*, as well as key program elements, estimated resources, and timing
 - Remediation was identified as the *minimum state* required to meet Contract Standards
- Reaching remediation does not equal complete correction of deficiencies, nor does it represent optimal operation of use of best practices - Corrections and improvements must continue to be performed to achieve Puerto Rico's goals
- As work proceeds, LUMA will have a more comprehensive picture of the state of the T&D System, and the pace of improvements - annual reviews and updates will be performed and provided to PREB
 - These will reflect progress made on specific programs and the effect of continually improving source data and information



Remediated State

Score	Unfocused 1	Aware 2	Remediated Developing 3	Competent 4	Excellent 5
Scoring Criteria	<p>The organization has not recognized the need for the basic elements and/or there is no evidence of commitment to put them in place.</p> <p>Work is performed informally or ad hoc</p> <p>Processes are undocumented and/or undefined</p> <p>Issues present major exposures</p> <p>Required expertise/training does not exist, capacity is insufficient or both</p>	<p>The organization has a basic understanding of the need to address these elements and is in the process of deciding how/starting to apply them.</p> <p>Preliminary documentation of processes being compiled</p> <p>Performance is unmeasured</p> <p>Little organizational effort to identify issues</p>	<p>The organization has identified the means to address the major elements and some work is progressing on implementation.</p> <p>Basic performance can be measured</p> <p>Performance is minimally adequate</p> <p>Processes are documented and defined</p> <p>Issue identification is performed</p> <p>Competitively sub-par</p>	<p>All elements are in place and are implemented in the day-to-day operations of the business.</p> <p>Major improvements made</p> <p>Performance is adequate and continuously measured/verified</p> <p>Processes are managed (followed consistently) with appropriate controls</p> <p>Disciplined issues identification</p> <p>Competitively at par</p>	<p>The organization is using processes and approaches beyond the basic requirements, driving to achieve maximum value.</p> <p>Verifiable issues/defect reductions and or practices continuous improvement</p> <p>Deliberate effort to optimize/improve processes</p> <p>Competitively well positioned to competitively differentiated</p>

Score Value	Health/Condition
4	System like new (replaced or refurbished within the last five years)
3	System has been maintained with general operations and maintenance on a routine basis; no major issues noted
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0	End of life or not operational

Remediated

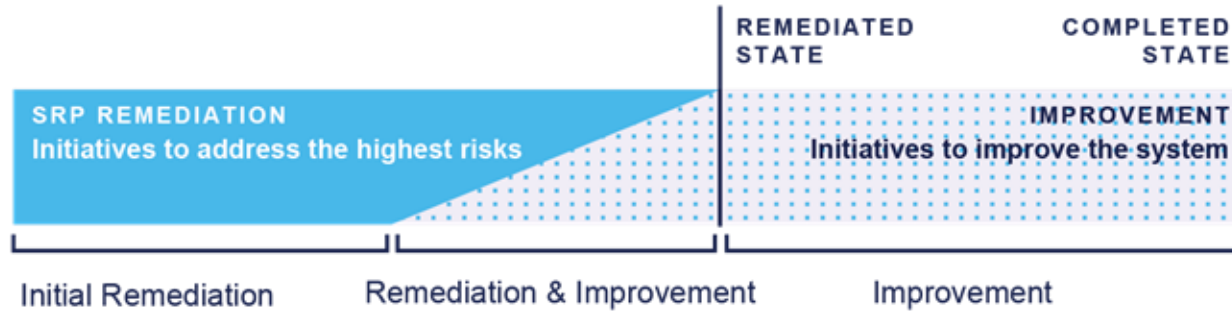


SRP Programs Remediation

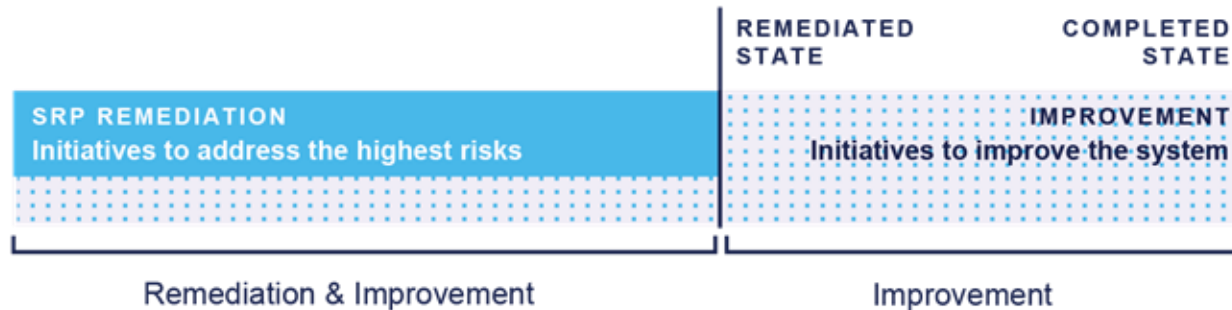
SRP Program: Remediation Only



SRP Program: Remediation Followed by Improvement



SRP Program: Remediation Alongside Improvement



SRP Progression & Management



Pace of Investment

- Achieving a remediated state is formidable challenge in some areas, and must be executed in a prudent and fiscally responsible manner
 - Addressing all deficiencies within a one-or two-year period is neither financially prudent nor operationally feasible
- LUMA has developed the SRP with the information available and using accepted concepts and techniques to determine areas of high risk



Managing the SRP

- LUMA recognizes that there are uncertainties associated with the SRP
- LUMA anticipates that as work proceeds there will be better information on the utility's assets and processes, and will make adjustments to improve execution of the programs
- On an annual basis, LUMA will review and update the SRP based on ongoing improvements in source data and information so that execution of the SRP programs can be documented and the resulting improvement in organizational maturity and assets health recorded



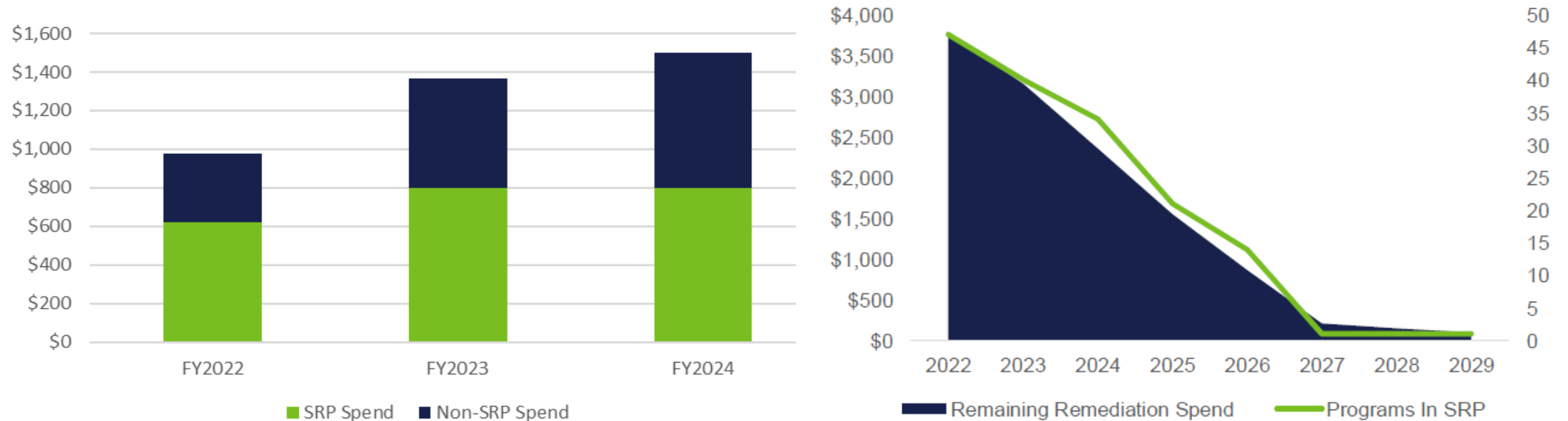
Annual SRP Spending Profile as a portion of Recovery and Transformation Improvement Programs

(\$ million)	FY22			FY23			FY24		
Portfolio	Total Program Spend	SRP Portion	SRP % of Total Program Spend	Total Program Spend	SRP Portion	SRP % of Total Program Spend	Total Program Spend	SRP Portion	SRP % of Total Program Spend
Customer Service	115	39	33%	168	44	26%	165	42	26%
Distribution	237	166	70%	352	238	68%	518	278	54%
Transmission	240	186	77%	463	270	58%	427	220	51%
Substations	115	64	55%	108	74	68%	107	73	68%
Control Center and Buildings	20	17	88%	56	51	91%	68	58	87%
Enabling	149	128	86%	117	112	95%	121	117	96%
Support Services	104	21	21%	104	13	13%	95	11	11%
Grand Total	979	621	63%	1,368	801	59%	1,501	799	53%



SRP Spending Profile

Program Spending Profile (\$ million)



FY22-24 Key SRP Improvement Programs

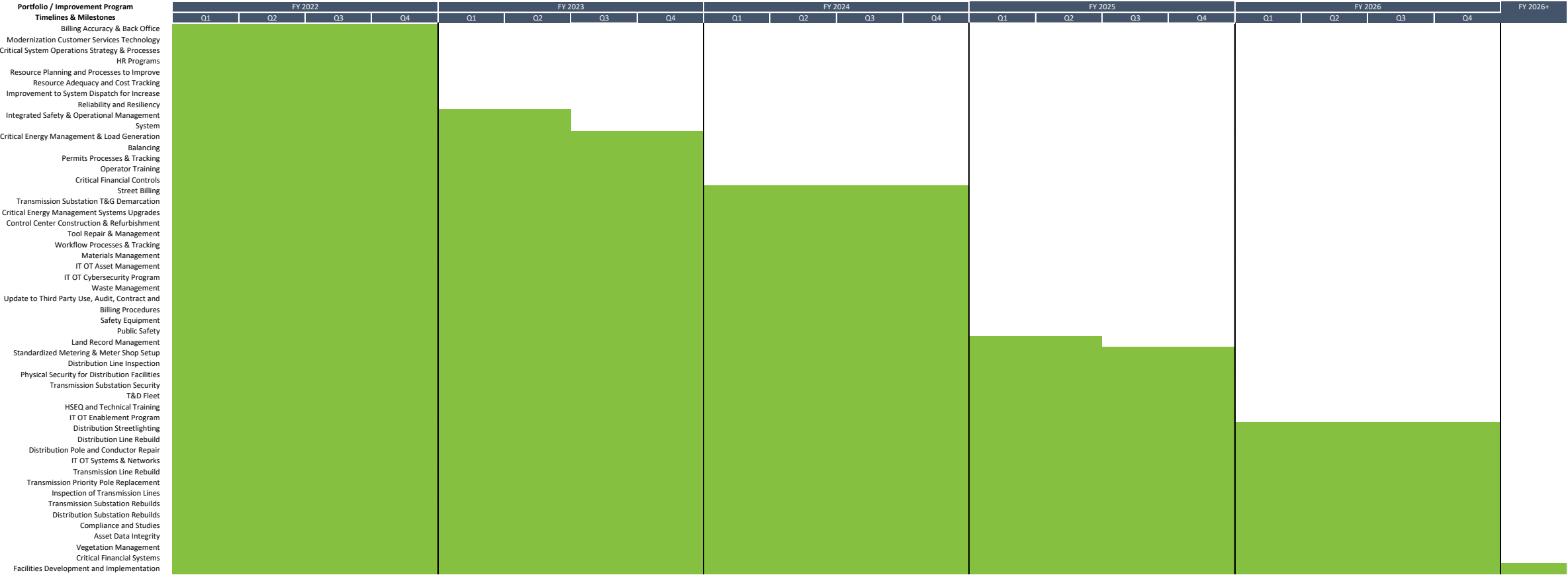
\$, millions

	Portfolio	Program	2022 SRP Spend	2023 SRP Spend	2024 SRP Spend	FY 22-24 SRP Total
1	Transmission	IT OT Telecom Systems & Network	\$134.7	\$204.8	\$155.2	\$494.8
2	Distribution	Distribution Pole and Conductor Repair	85.1	160.1	200.0	445.2
3	Enabling	Vegetation Management	50.0	60.0	60.0	170.0
4	Distribution	Distribution Line Rebuild	55.5	52.8	52.8	161.1
5	Transmission	Transmission Priority Pole Replacements	40.0	40.0	40.0	120.0
6	Customer Service	Distribution Streetlighting	25.0	42.0	41.0	108.0
7	Enabling	T&D Fleet	48.4	24.4	28.6	101.5
8	Distribution	Distribution Lines Inspection	25.4	25.4	25.4	76.1
9	Substations	Transmission Substation Rebuilds	20.6	27.3	27.3	75.1
10	Control Center & Buildings	Facilities Development & Implementation	14.8	14.9	21.0	50.7
		Key SRP Program Spend	\$499.4	\$651.7	\$651.3	\$1,802.4
		Additional SRP Program Spend	\$121.2	\$149.7	\$148.0	\$418.8
		Total Capital Program SRP Spend	\$620.6	\$801.4	\$799.2	\$2,221.2

Note: Key SRP Improvement Programs are programs with FY22-24 SRP Spend of \$50 million or above.

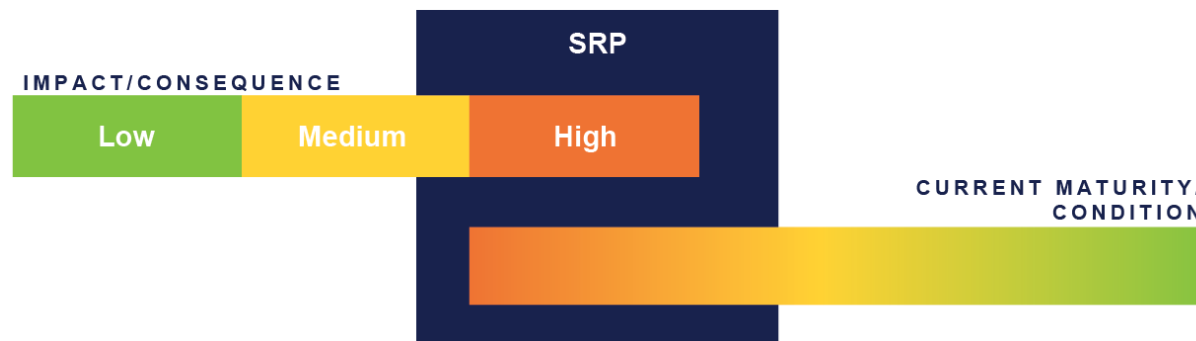


SRP Portfolio / Program Histogram



Conclusion

- Purpose of the SRP is to provide an appropriate transition from the current state to one where the minimum conditions are met for Contract Standards, including Prudent Utility Practice
- System Remediation Plan focuses on the items within the Recovery and Transformation Framework that address the highest potential risks to the utility, its employees and the people of Puerto Rico
- Remediation was identified as the *minimum state* required to meet Contract Standards, reaching remediation does not equal complete correction of deficiencies and improvement activities will continue beyond remediation





Thank you

